





# For Reference

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Cap 2



















# NORTHEASTERN UNIVERSITY



## *Catalogs of*

COLLEGE OF LIBERAL ARTS

COLLEGE OF ENGINEERING

COLLEGE OF BUSINESS ADMINISTRATION

SCHOOL OF LAW

SCHOOL OF BUSINESS

EVENING DIVISION OF COLLEGE OF LIBERAL ARTS

---

LINCOLN TECHNICAL INSTITUTE

LINCOLN PREPARATORY SCHOOL

---

HUNTINGTON SCHOOL FOR BOYS





# Northeastern University

DAY DIVISION

COLLEGE OF  
LIBERAL ARTS



1939-1940

BOSTON, MASSACHUSETTS

January, 1939



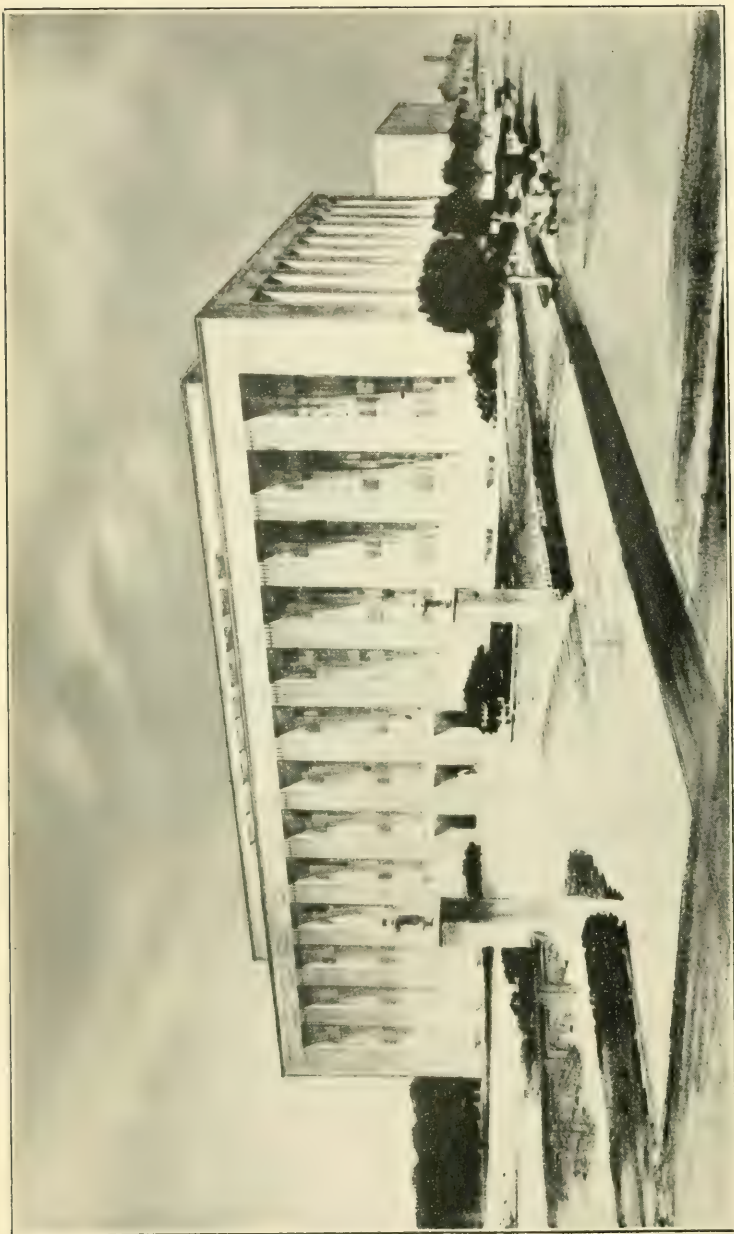


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- (c) For specific purposes which may especially appeal to the donor.

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WEST BUILDING - NORTHEASTERN UNIVERSITY



NORTHEASTERN UNIVERSITY  
DAY DIVISION

COLLEGE OF LIBERAL ARTS

*Conducted on the Co-operative Plan*

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# Freshman Calendar, 1939-1940

## SEPTEMBER

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

## OCTOBER

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

## NOVEMBER

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

## DECEMBER

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

## JANUARY

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

## FEBRUARY

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29		

## MARCH

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

## APRIL

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

## MAY

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

## JUNE

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

## JULY

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

## AUGUST

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Days on which college exercises are held are indicated thus: **1, 2, 3.**

Sundays, holidays, and vacations are indicated thus: 1, 2, 3.



# Upperclass Calendar, 1939-1940

## SEPTEMBER

S	M	T	W	T	F	S
					①	②
③	④	⑤	⑥	⑦	⑧	⑨
⑩	11	12	13	14	15	16
⑬	18	19	20	21	22	23
⑭	25	26	27	28	29	30

## OCTOBER

S	M	T	W	T	F	S
	2	3	4	5	6	7
⑧	9	10	11	⑬	13	14
⑮	16	17	18	19	20	21
⑳	23	24	25	26	27	28
㉑	30	31				

## NOVEMBER

S	M	T	W	T	F	S
			1	2	3	4
⑤	6	7	8	9	10	11
⑫	13	14	15	16	17	18
⑬	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>
⑯	<b>27</b>	<b>28</b>	<b>29</b>	⑳		

## DECEMBER

S	M	T	W	T	F	S
					1	2
③	4	5	6	7	8	9
⑩	11	12	13	14	15	16
⑬	18	19	20	21	22	23
⑭	⑮	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>
⑯						

## JANUARY

S	M	T	W	T	F	S
	①	2	3	4	5	6
⑦	8	9	10	11	12	13
⑭	15	16	17	18	19	20
⑮	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>
㉑	29	30	31			

## FEBRUARY

S	M	T	W	T	F	S
				1	2	3
④	5	6	7	8	9	10
⑪	12	13	14	15	16	17
⑫	19	20	21	⑳	23	24
㉑	26	27	28	29		

## MARCH

S	M	T	W	T	F	S
					1	2
③	4	5	6	7	8	9
⑩	11	12	13	14	15	16
⑬	18	19	20	21	22	23
⑭	25	26	27	28	29	30
⑯						

## APRIL

S	M	T	W	T	F	S
	1	2	3	4	5	6
⑦	8	9	10	11	12	13
⑭	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>
⑮	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>
㉑	<b>29</b>	<b>30</b>				

## MAY

S	M	T	W	T	F	S
			1	2	3	4
⑤	6	7	8	9	10	11
⑫	13	14	15	16	17	18
⑬	20	21	22	23	24	25
⑯	27	28	29	⑳	31	

## JUNE

S	M	T	W	T	F	S
						1
②	3	4	5	6	7	8
⑨	10	11	12	13	14	15
⑫	⑬	⑭	⑮	⑯	⑰	⑱
㉑	⑳	㉑	㉒	㉓	㉔	㉕
㉖						

## JULY

S	M	T	W	T	F	S
	①	②	③	④	⑤	⑥
⑦	8	9	10	11	12	13
⑭	⑮	⑯	⑰	⑱	⑲	⑳
㉑	㉒	㉓	㉔	㉕	㉖	㉗
㉘	㉙	㉚	㉛			

## AUGUST

S	M	T	W	T	F	S
				①	②	③
④	⑤	⑥	⑦	⑧	⑨	10
⑪	⑫	⑬	⑭	⑮	⑯	⑰
⑫	⑱	⑳	㉑	㉒	㉓	㉔
㉕	㉖	㉗	㉘	㉙	㉚	㉛

Days on which Division A students are in college are indicated thus: 1, 2, 3.

Days on which Division B students are in college are indicated thus: 1, 2, 3.

Sundays, holidays, and summer periods are indicated thus: ①, ②, ③.

See page 5 for statement of summer review periods and upperclass vacations.

# Calendar for the College Year, 1939-1940

1939

- AUGUST 30 *Wednesday.* Entrance condition examinations.
- SEPTEMBER 4 *Monday.* Labor Day. (College exercises omitted.)
- SEPTEMBER 7 *Thursday.* Registration and opening of college for freshmen. Students failing to register promptly on September 7 will be charged a late registration fee of five dollars (\$5).
- SEPTEMBER 11 *Monday.* Opening of college for Division A upperclassmen.
- OCTOBER 12 *Thursday.* Columbus Day. (College exercises omitted.)
- NOVEMBER 20 *Monday.* Opening of college for Division B upperclassmen.
- NOVEMBER 29 *Wednesday.* College exercises omitted after 1:00 p.m.
- NOVEMBER 30 *Thursday.* Thanksgiving Day. (College exercises omitted.)
- DECEMBER 25 *Monday.* Christmas Day. (College exercises omitted.)
- DECEMBER 21 }  
JANUARY 3 } Vacation for freshmen.



1940

- JANUARY 1 *Monday.* New Year's Day. (College exercises omitted.)
- JANUARY 29 *Monday.* Second semester begins for freshmen and Division A upperclassmen.
- FEBRUARY 22 *Thursday.* Washington's Birthday. (College exercises omitted.)

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- |           |    |  |
|-----------|----|--|
| APRIL     | 6  | <i>Saturday.</i> College year ends for Division A upperclassmen.   |
| APRIL     | 8  | <i>Monday.</i> Second semester begins for Division B upperclassmen.  |
| MAY       | 25 | <i>Saturday.</i> College year ends for freshmen.   |
| MAY       | 30 | <i>Thursday.</i> Memorial Day. (College exercises omitted.)  |
| JUNE      | 15 | <i>Saturday.</i> College year ends for Division B upperclassmen.   |
| JUNE      | 16 | <i>Sunday.</i> Baccalaureate Sermon.   |
| JUNE      | 17 | <i>Monday.</i> Bunker Hill Day. (College exercises omitted.)   |
| JUNE      | 18 | <i>Tuesday.</i> Commencement.<br>Review courses or vacation begins for Division A upperclassmen.<br>Summer period of co-operative work begins for Division B upperclassmen.            |
| JULY      | 4  | <i>Thursday.</i> Independence Day. (College exercises omitted.)  |
| JULY      | 13 | <i>Saturday.</i> Review courses end for Division A upperclassmen.  |
| JULY      | 29 | <i>Monday.</i> Vacation begins for Division B upperclassmen.<br>Summer period of co-operative work begins for Division A upperclassmen.  |
| AUGUST    | 12 | <i>Monday.</i> Review courses begin for freshmen and Division B upperclassmen.   |
| SEPTEMBER | 2  | <i>Monday.</i> Labor Day. (College exercises omitted.)   |
| SEPTEMBER | 5  | <i>Thursday.</i> Registration and opening of college for freshmen. Students failing to register promptly on September 5 will be charged a late registration fee of five dollars (\$5). |
| SEPTEMBER | 7  | <i>Saturday.</i> Review courses end for Division B upperclassmen and for freshmen.   |
| SEPTEMBER | 9  | <i>Monday.</i> Opening of college year 1940-1941.  |



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IRVING EDWIN MOULTROP  
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*Instructor in Co-ordination*  
Res. 60 Birchcliff Rd., East Weymouth  
*Instructor in English*  
Res. 73 Upland Rd., Brockton  
*Instructor in English*  
Res. 15 Linden St., Framingham  
*Instructor in Mathematics*  
Res. 74 Fenway, Boston  
*Instructor in Modern Languages*  
Res. 75 Burbank St., Boston  
*Instructor in Banking and Finance*  
Res. 1A Gibson Ter., Cambridge

### Graduate Assistants

ADAM MARTIN COOK, S.B.  
Office 246 West Building  
LAURENT OSCAR DUBOIS, S.B.  
Office 425 West Building  
ROBERT HENRY HANSEN, S.B.  
Office 425 West Building  
LYMAN ALBERT KEITH, S.B.  
Office 351 East Building  
HAROLD THOMAS REGAN, S.B.  
Office 363 East Building

*Graduate Assistant in Physics*  
Res. 440 Summer St., Lynn  
*Graduate Assistant in Chemistry*  
Res. 1200 Great Plain Ave., Needham  
*Graduate Assistant in Chemistry*  
Res. 17 Braman St., Danvers  
*Graduate Assistant in Business Administration*  
Res. 339 Lakeside Drive, Bridgewater  
*Graduate Assistant in Economics*  
Res. 84 Pemberton St., Cambridge

### Office and Secretarial Staff

FLORENCE ELSIE AVELLAR	70 Fenway, Boston
<i>Secretary to the Treasurer of the University—116W</i>	
LULU THYNG BRINCKLOW	109 Peterborough St., Boston
<i>Secretary to the Director of Admissions—150W</i>	
MARJORIE ELIZABETH BUNKER	38 Lakewood Rd., Newton Hlds.
<i>Publicity Office—352W</i>	
HELEN MUIR COOLBROTH	11 Windsor Rd., West Somerville
<i>University Press, South Building</i>	
VIRGINIA CUSHING DARLING	23 Brimmer St., Boston
<i>General Offices of the University—115W</i>	
THELMA GERTRUDE DUNN	30 Freeman Pl., Needham
<i>Bookkeeper, Treasurer's Office—115(A)W</i>	
DAISY MILNE EVERETT	1095 Highland Ave., Needham Heights
<i>Bookkeeper, Treasurer's Office—115(A)W</i>	
RUTH PHILLIPS FIOTT	173 Marianna St., East Lynn
<i>Admissions Office—150W</i>	
MILDRED CURTIS GARFIELD	2142 Commonwealth Ave., Auburndale
<i>Secretary to the Dean—152W</i>	
EDNA JANE GARRABRANT	8 Maynard St., Arlington
<i>Secretary to the Director of Co-operative Work—253W</i>	
LUCY GORHAM HAGER	34 Linnaean St., Cambridge
<i>Assistant Librarian—Library, East Building</i>	
MARJORIE DAYTON HOLCOMB	18 Solon St., Newton Hlds.
<i>Secretary to the President—186W</i>	
ELSIE HINCKLEY HUNT	100 Linden St., Allston
<i>Admissions Office—150W</i>	
BARBARA KNIGHT	254 Clifton St., Malden
<i>Secretary to the Dean of Instruction—352E</i>	
HELEN LOUISE KOLDERUP	14 Holden Rd., Belmont
<i>Cashier, Treasurer's Office—115W</i>	
MARGARET LOUISE MARCHANT	45 Lincoln St., Winchester
<i>Admissions Office—150W</i>	

FLORENCE MASKELL	42 Brush Hill Rd., Milton
Co-operative Work Office—253W	
DOROTHY BRETT MASON	15 Wenham St., Jamaica Plain
School Administration Office—254W	
DOROTHY MILNE MURRAY	204 Fair Oak Park, Needham
Secretary to the Director of Student Activities—355W	
ALYCE ANN NICHOLS	507 Chestnut St., Needham
Bookkeeper, Treasurer's Office—115(A)W	
CAROLINE FRANCES PETTINGELL	1654 Massachusetts Ave., Cambridge
Bookkeeper, School Administration Office—254W	
MARJORIE GRAFFTE PROUT	1179 Boylston St., Boston
Office of the Dean—152W	
MADELYN EDYTHE RALPH	64 Beach Ave., Swampscott
Secretary to the Executive Secretary—153W	
GRETCHEN DOUGLASS RANDALL	48 Milk St., Newburyport
School Administration Office—254W	
JESSIE PAINE RHODES	2 Perkins Sq., Jamaica Plain
Secretary to the Director of School Administration—254W	
PRISCILLA SPEARE	69 Pelham St., Newton Ctr.
Secretary to the Dean of Students—256W	
RUBY KATHLEEN SWEETLAND	139 College Ave., Somerville
Student Activities Office—355W	
JEANETTE THAYER	4 Hamilton Rd., Waltham
Co-operative Work Office—253W	
MARY DIXON TURNER	163 Forest St., Melrose
Student Union Office—357W	
GRACE LISCOM WATKINS	76 Glendale St., Dorchester
Assistant Librarian—Library, East Building	
MARGARET MARY WEIR	41 Stewart St., Quincy
Admissions Office—150W	

### Office and Laboratory Assistants

FRANCIS R. ARCHIBALD	Assistant in the Library
JOSEPH P. BEATON	Assistant in the Department of Admissions
JOHN R. BYRNE	Assistant in the Department of Admissions
JACK H. CASWELL	Assistant in the Student Activities Office
RALPH A. COLEMAN	Assistant in Chemistry
JAMES COLLIGEN	Assistant in the Student Union
JAMES J. CONNOLLY	Assistant in the Student Activities Office
BERNARD N. FALKOFF	Assistant in Chemistry
GEORGE F. FORBES	Assistant in the Library
BERNARD J. GAFFNEY	Assistant in Chemistry
ROBERT J. GINTHER	Assistant in Chemistry
CHARLES V. HAAS	Assistant in the Library
ROBERT F. HARRINGTON	Assistant in the Department of Biology
MERRILL D. HART	Assistant in the Office of the Dean
GARDNER W. HOLMES, JR.	Assistant in the Department of Admissions
RUSSELL T. KENNEFICK	Assistant in the Office of the Dean
WILLIAM H. LITTLE	Assistant in the Student Union
ALBERT S. MAKAS	Assistant in the Department of Physics
ARTHUR O. MARTENSEN	Assistant in the Department of Co-operative Work
RALPH C. MACDONALD	Assistant in Chemistry
HOWE C. MONTEITH	Assistant in the Library
WILLIAM C. PETRASKE	Assistant in Chemistry
STANLEY L. ROGERS	Assistant in the Department of Admissions
GUSTAV ROOK	Assistant in the Department of Physics
FRANK J. SANSEVERINO	Assistant in Chemistry
LEWIS B. SMITH	Assistant in Chemistry
REGINALD C. THOMAS	Assistant in the Department of Biology
LORING M. THOMPSON	Assistant in the Office of the Dean

## University Lecturers

SANFORD BATES  
FORMER SUPERINTENDENT OF FEDERAL PRISONS  
*"Leaders for Leisure"*

ROLLO WALTER BROWN  
AUTHOR, LECTURER  
*"If I Should Write Your Biography"*

SMEDLEY D. BUTLER  
GENERAL, U. S. MARINE CORPS, RETIRED  
*"War Is a Racket"*

BERNARD C. CLAUSEN  
MINISTER, FIRST BAPTIST CHURCH, PITTSBURGH  
*"Fight Somebody Your Size"*

J. ANTON DE HAAS  
PROFESSOR OF INTERNATIONAL RELATIONSHIPS, HARVARD UNIVERSITY  
*"Where Do We Go From Here?"*

LLOYD C. DOUGLAS  
AUTHOR, LECTURER  
*"Experiences of an Author"*

HARRY N. HOLMES  
NATIONAL YOUTH RADIO PREACHER  
*"Using Big Maps in a Shrinking World"*

H. V. KALTENBORN  
EDITOR, AUTHOR, NEWS COMMENTATOR  
*"Kaltenborn Edits the News"*

TEHYI HSIEH  
STATESMAN, ECONOMIST, AUTHOR  
*"Storms over Asia"*

FRANK KINGDON  
PRESIDENT, NEWARK UNIVERSITY  
*"Giants and Grasshoppers"*

HENRY CABOT LODGE, JR.  
UNITED STATES SENATOR FROM MASSACHUSETTS  
*"The National Outlook"*

J. EDGAR PARK  
PRESIDENT, WHEATON COLLEGE  
*"The Secret of Success"*

GERHART SEGER  
FORMER MEMBER OF GERMAN REICHSTAG  
*"The Source of Hitler's Strength"*

RALPH W. SOCKMAN  
MINISTER, CHRIST CHURCH, NEW YORK CITY  
*"The New Patriotism"*

HOWARD THURMAN  
PROFESSOR OF PHILOSOPHY, HOWARD UNIVERSITY  
*"The Challenge of India"*



## *Chapel Preachers*

DR. CHARLES N. ARBUCKLE

MINISTER, FIRST BAPTIST CHURCH, NEWTON

DR. RICHARD H. BENNETT

MINISTER, PAYSON PARK CHURCH, BELMONT

DR. EDWIN PRINCE BOOTH

PROFESSOR OF CHURCH HISTORY, BOSTON UNIVERSITY SCHOOL OF THEOLOGY

DR. DWIGHT BRADLEY

MINISTER, UNION CONGREGATIONAL CHURCH, BOSTON

REVEREND ROBERT WOOD COE

MINISTER, LEYDEN CONGREGATIONAL CHURCH, BROOKLINE

RABBI BERYL D. COHON

RABBI, TEMPLE ISRAEL, BOSTON

DR. FRANK E. DUDDY

MINISTER, NORTH CONGREGATIONAL CHURCH, CAMBRIDGE

DR. NEWTON C. FETTER

MINISTER TO BAPTIST STUDENTS IN GREATER BOSTON

DR. C. LESLIE GLENN

MINISTER, CHRIST CHURCH, CAMBRIDGE

REVEREND NORMAN D. GOEHRING

MINISTER TO LUTHERAN STUDENTS IN GREATER BOSTON

REVEREND WILLIAM H. GYSAN

MINISTER TO UNITARIAN STUDENTS IN GREATER BOSTON

DR. CHARLES W. HAVICE

EXECUTIVE SECRETARY, NORTHEASTERN STUDENT UNION

DR. ARTHUR LEE KINSOLVING

MINISTER, TRINITY CHURCH, BOSTON

REVEREND CARL H. KOPF

MINISTER, MOUNT VERNON CHURCH, BOSTON

DR. ASHLEY D. LEAVITT

MINISTER, HARVARD CONGREGATIONAL CHURCH, BROOKLINE

DR. ELMER A. LESLIE

PROFESSOR OF HEBREW AND OLD TESTAMENT LITERATURE, BOSTON UNIVERSITY

REVEREND FATHER MADDUX

PRIEST, CHURCH OF ST. JOHN THE EVANGELIST, BOSTON

DR. BOYNTON MERRILL

MINISTER, SECOND CHURCH, NEWTON

REVEREND SAMUEL H. MILLER

MINISTER, OLD CAMBRIDGE BAPTIST CHURCH, CAMBRIDGE

DR. PHILLIPS E. OSGOOD

MINISTER, EMMANUEL CHURCH, BOSTON

# Northeastern University

## *Purpose and Program*

NORTHEASTERN UNIVERSITY from the outset has been developed around the simple yet practical purpose of meeting human needs in distinctive and serviceable ways, maintaining flexibility in program and organization in order that constant adjustment could be made to changing needs.

Pursuant to this purpose, the University has evolved a definite plan of education which embraces primarily Co-operative Education by day and Adult Education by night. So far as the New England States are concerned, Northeastern University is the only institution whose day colleges, other than the School of Law, are conducted under the Co-operative Plan. The several schools and programs of the University are operated either under the name "Northeastern University" or by its affiliated schools, the Lincoln Schools, and The Huntington Day School for Boys. The following is a brief outline of the principal types of educational opportunities offered.

1. In the field of Co-operative Education there are three day colleges — the College of Liberal Arts, the College of Engineering, and the College of Business Administration. All of these colleges offer five year curricula. The College of Liberal Arts offers majors in the usual fields of the arts and the sciences leading to the degrees of Bachelor of Arts and Bachelor of Science. The College of Engineering, one of the largest engineering colleges in the United States, has curricula in Civil, Mechanical (with Diesel, Air-Conditioning, and Aeronautical options), Electrical, Chemical, and Industrial Engineering. The College of Business Administration has curricula in Accounting, Banking and Finance, and Business Management. The College of Engineering and the College of Business Administration confer the degree of Bachelor of Science with specification indicating the field of specialization. The Co-operative Plan under which all of these day colleges operate enables the student to alternate regular periods of classroom instruction with supervised employment in an industrial or commercial position, thus combining theory and practice in an exceedingly effective manner. Apart from the educational advantages of the Co-operative Plan is the opportunity for self-support while the student is pursuing his studies at Northeastern University. During the co-operative periods, students not only gain experience but are also paid for their

services. Approximately three hundred business and industrial concerns co-operate with Northeastern University in making this program effective.

2. The School of Law conducts both a day and an evening undergraduate program which prepares for admission to the bar and for the practice of the law and leads to the degree of Bachelor of Laws. It also conducts a graduate program in the evening leading to the degree of Master of Laws.
3. The Adult Education Program has been developed in the evening work of the School of Law as indicated above and in the School of Business whose classes meet in the evening. The School of Business has curricula in Management, Accounting, Law and Business Management and Engineering and Business. This School awards the Bachelor of Business Administration degree with specification and the Bachelor of Commercial Science degree in Law and Business Management. A pre-legal program is also available in the evening offering the equivalent of two years of college work and preparing for admission to the School of Law.
4. In order that larger groups of men and women might be served through its evening schools, Northeastern University operates divisions of the School of Law and the School of Business in co-operation with the Young Men's Christian Association in Worcester and Springfield and of the School of Business in co-operation with the Providence Young Men's Christian Association. With the establishment of the divisions, thoroughgoing methods of supervision were instituted and have been consistently followed and improved, with the result that the divisional work is conducted upon a highly efficient basis.
5. The Adult Education Program has also been developed through the Lincoln Schools, which are affiliated with and conducted by Northeastern University. The classes in these schools are held at convenient evening hours. The Lincoln Technical Institute offers curricula upon a junior college level in various phases of engineering; whereas the Lincoln Preparatory School, accredited by the New England College Entrance Certificate Board, prepares students for admission to college and offers other standard high school programs.
6. The Huntington Day School for Boys, also affiliated with and conducted by Northeastern University, is the outgrowth of a demand in the city of Boston for an urban preparatory

school with high educational standards which would furnish thorough preparation for admission to the leading colleges and universities. While easily accessible to the various sections of Boston and to the suburbs, it has the facilities of a country day school and offers a country day school program. This School is one of the leading preparatory schools of the country.



### *Organization*

Northeastern University is incorporated as a philanthropic institution under the General Laws of Massachusetts. The State Legislature, by special enactment, has given the University general degree granting powers.

The Corporation of Northeastern University consists of men who occupy responsible positions in business and the professions. This Corporation elects from its membership a Board of Trustees in whom the control of the institution is vested. The Board of Trustees has four standing committees: (a) an Executive Committee which serves as an Ad Interim committee between the regular meetings of the Board of Trustees and has general supervision of the financial and educational policies of the University; (b) a Committee on Housing which has general supervision over the buildings and equipment of the University; (c) a Committee on Funds and Investments which has the responsibility of administering the funds of the University; (d) a Development Committee which is concerned with furthering the development plans of the University.

The Board of Trustees has also created, through its by-laws, an Executive Council, consisting of the President, the Secretary, and the two Vice-Presidents of the University. To the Executive Council the Board has allocated broad powers.



# Northeastern University and Affiliated Schools

## Statistical Summary

1937-1938

	Administrative Officers and Faculty	Students
I. General Administration	8	
II. Northeastern University		
College of Liberal Arts	79	1905
College of Engineering		
College of Business Administration		
School of Law	46*	1949*
School of Business	101*	1531*
III. Schools affiliated with and conducted by Northeastern University		
Lincoln Schools	52	1048
Huntington Day School for Boys		
Regular Term	16	197
Summer Term	9	122
	<hr/>	<hr/>
Total	311	6752
Less Duplicates	39	460
	<hr/>	<hr/>
Net Total	272	6292

\*These figures include the administrative officers, faculties and students of the Divisions of the University in Worcester, Springfield and Providence.

## The Co-operative Plan

### *How It Works*

THE co-operative plan works in the following manner. Upperclassmen are divided into two nearly equal groups, one of which is called Division A and the other Division B. Each man is assigned a job with some business or industrial concern. So far as possible each man in one Division is paired with a man in the other Division, so that the two, by taking turns, may occupy one job throughout the entire year. In September the Division A student returns to the University for ten weeks of classroom work. At the end of that time he goes out to work ten weeks with a co-operating firm. His place at the University is then taken by his *alternate*, the corresponding Division B student. When ten weeks more have passed, the Division A man returns to college, and the Division B man returns to the co-operative job. The alternation of work and classroom study continues throughout the year, except that one working period in the summer for each division is six weeks in length instead of ten. An upperclassman thus has twenty weeks at college, twenty-six weeks at co-operative work, and six weeks of vacation each year.

### *Faculty Co-ordinators*

Students are assigned to a co-ordinator, who interviews them periodically during their freshman year for the purpose of determining their background, abilities, temperaments, and aptitudes. During these interviews the co-ordinator discusses various fields of activity and answers such questions as the students may have in regard to the many phases of business and industry. Each student is studied in the light of his physical condition, scholastic ability, and other factors affecting his probable success in vocational life. These interviews culminate in a mutual agreement between the student and his co-ordinator regarding the field of co-operative work in which the student is to be placed. During his upperclass years the student continues to have frequent conferences with his co-ordinator regarding vocational adjustments and personal problems. In this way the progress of every student is observed and co-ordinated with his college work to the end that he may obtain maximum values from his training at Northeastern.

### *Placement*

The co-ordinator visits co-operative firms and arranges with them for the employment of the students under his charge. The range of opportunities available to Northeastern students is wide, including practically all phases of industrial life. As a general rule, sophomores are placed upon routine and laborious jobs through which they may prove their fitness for more responsible work. The jobs upon which Northeastern students are employed are in no sense protected opportunities. They are regular jobs under actual business conditions and are held in competition with other sources of supply. The only special privilege accorded Northeastern students is that of attending college on the co-operative plan. The University expects every student to stand on his own feet while he is on co-operative work, and advancement to the more responsible jobs is based entirely upon merit.

### *Supervision and Guidance*

While the University does not adopt a paternal attitude toward co-operative work, it nevertheless assumes certain responsibilities toward students and co-operating firms. Co-ordinators visit each job in order that the employer may report upon the student's achievement and that necessary adjustments may be made. Co-ordinators supervise the assignment of students to various jobs and in conjunction with employers arrange for promotions and training schedules. Problems that arise on co-operative work are adjusted by mutual agreement of co-ordinator, student, and employer. In the event of special difficulties or dissatisfaction, the case may be adjusted by the Committee on Co-operative work, which comprises several members of the faculty.

Through a series of co-operative work reports prepared during their working periods, students are led to analyze their jobs and to develop a thoughtful and investigative attitude toward their working environment. A most important phase of co-operative work is the opportunity afforded for guidance by the frank discussion of actual problems encountered on the job. The intimate contact between co-ordinator and student is of great worth in helping the student to get the most value from each co-operative work assignment. While the University endeavors to provide every possible opportunity for its students, it expects them at the same time to take the initiative and to assume the responsibility involved in their individual development. To every student are available the counsel and guidance of the faculty, and every resource at its disposal. But the faculty does not coerce students who are uninterested or unwilling to think for themselves.

The co-operative plan is thus designed specifically to provide actual working conditions which shall afford the student practical experience, give meaning to his program of study, and train him in reliability, efficiency, and team work.

### *Correlation of Theory and Practice*

Co-operating companies employ the students in the various departments of their establishments. The training is thorough. To derive the greatest value from his co-operative work the student is advised to continue in the employ of his co-operating firm for *at least one year* after graduation, since certain types of work which would afford him valuable experience cannot be made available to him while he is alternating between work and study. Statistics compiled over a period of many years show that on the average about fifty per cent of each graduating class do remain with their co-operating employers after graduation.

### *Co-operative Work Reports*

The values to be derived from the practical experiences are further enhanced by required report writing. These co-operative work reports are written during the working periods by all co-operative students. A complete job analysis is required as the first report written on any new co-operative work assignment. Subjects of other reports are selected by the student after conference with his Co-ordinator of Co-operative Work, by whom they must be approved. The reports are designed to encourage observation and investigation on the part of the students and to help them to appreciate more fully the extent and value of their experience. These reports are carefully read by the Co-ordinator and are discussed with the student during the following college period. Exceptionally valuable results are obtained from these reports. The value derived must necessarily be directly proportional to the conscientious and intelligent concentration of effort by the student upon this phase of the work.

### *Co-operative Work Records*

Complete and detailed records are kept of the co-operative work of each student. They are based upon reports made by the employer at the end of each working period; upon occasional personal interviews between the employer and the Co-ordinator; and upon various evidences of the student's attitude toward all the phases of his co-operative work. It is not possible for the student to secure a degree unless this part of the curriculum is completed satisfactorily. These records of practical experience serve as a valuable future reference for the Alumni Placement Division of the Department.



### *Positions Available*

Because of uncertainties of business conditions, as well as other reasons beyond its control, the University cannot and does not guarantee to place students. Although the University in no way discriminates among students of various races and religions, considerable difficulty has been experienced in placing at co-operative work the members of certain racial groups and students who are physically handicapped. However, past experience has demonstrated that students who are willing and capable of adapting themselves to existing conditions are almost never without employment except in periods of severe industrial depression.

### *Earnings*

*The rates of pay for students are low, primarily because the students are given the privilege of attending college on the co-operative plan. The employer thus feels justified in devoting time to the instruction of the students and in transferring them at reasonable intervals from one department to another.*

For budgeting purposes the following scale of wages may be considered as the *minimum rates* to be paid the students in times of normal business.

\$12 per week for second year students

\$14 per week for third year students

\$16 per week for fourth and fifth year students

Statistical experience shows that the pay actually received by students averages appreciably above these figures.

### *Location of Work*

It is the policy of the University to assign students to co-operative work within commuting distance of their homes. This is not always possible, however, and at times it may be necessary for students to live away from home in order to obtain satisfactory and desirable co-operative work assignments.

### *Types of Co-operative Work*

Insofar as possible students are placed at co-operative work in that general field for which they express preference, provided that aptitude, physical ability, temperament and other personal qualities appear to fit them for this field. Usually students are placed first in the lower ranks of an organization where they may learn the fundamental requirements of the business.

For example, a student interested in manufacturing might be started as an operative on some machine in the plant. As his progress and other conditions warranted he would be transferred to other types of work such as shipping, inspecting, cost finding, adjusting complaints, or bookkeeping, and so on, so that in the course of his four years of co-operative training he would have the opportunity to acquire a substantial background in at least some of the functions of factory administration. This progressive type of training is more readily obtained in the employ of one company. A change of company each year provides more a change of environment than a progression of experiences.

Engineering companies, department stores, chain stores, wholesale houses, banks, manufacturing companies, public utilities, and many other types of enterprises are employing Northeastern students. In some cases definite training schedules have been established so as to permit the student one full year in each of several important departments.

## General Information

### *Tuition*

The tuition is \$250 per year.

For this tuition charge Liberal Arts students may take up to 18 semester hours in each term of the freshman year and up to 12 semester hours in each of the upperclass terms.

The semester hour charge for all work beyond the limit indicated above is at the rate of \$10 per semester hour.

Tuition for any student may be computed on the term basis as indicated above or on a semester hour basis. Any student may pay his tuition on either basis. All students pay the regular library and materials fee, and the student activities fee. The charge for tuition on the semester hour basis is a registration fee of \$25 plus \$10 per semester hour.

### *General Library and Materials Fee*

All students are charged a general library and materials fee of twelve dollars (\$12) each year. This fee is payable at the time of registration and is included in the schedule of payments on page 24.

### *Student Activities Fee*

Each student in the Day Division is charged a student activities fee of fifteen dollars (\$15). This fee is payable at the time of registration and is included in the schedule of payments on page 24. This fee supports in part certain student activities, and includes membership in the *Northeastern University Athletic Association*, and subscription to *The Northeastern News*, the college paper.

The services of a physician are also available for all students under this fee. Minor ailments are treated by the college health officers without additional charge. Should the student show signs of more serious illness, he is immediately advised to consult a specialist or return to his home, where he can get further treatment.

### *Chemical Laboratory Deposit*

All students taking chemical laboratory work are required to make a deposit at the beginning of each year, from which deductions are made for breakage, chemicals, and destruction of apparatus in the laboratory. Any unused portion of this deposit will be returned to the student at the end of the college year. If the charge for such breakage, chemicals, or destruction of apparatus is more than the sum deposited, the student will be charged the additional amount.

Freshmen taking chemistry make a deposit of ten dollars (\$10); upperclassmen, a deposit of fifteen dollars (\$15).

*Schedule of Payments for Freshmen*

<i>Date Due</i>	<i>Tuition and Fees</i>
*September 7, 1939	\$152.00
February 5, 1940	125.00

*Schedule of Payments for Upperclassmen*

	<i>Division A</i>	
**September 11, 1939		***152.00
January 29, 1940		125.00
	<i>Division B</i>	
**November 20, 1939		***152.00
April 8, 1940		125.00

There will be a \$2.00 deferred payment fee added to all bills which are not paid by the Saturday following the date on which payments fall due. When further extensions of time are given on payments which have been previously deferred, an additional \$2.00 fee will be charged for each extension.

Failure to make the required payments on time, or to arrange for such payments, is considered sufficient cause to bar the student from classes or suspend him from co-operative work until the matter has been adjusted with the Director of School Administration.

*Graduation Fee*

A fee of ten dollars (\$10) covering graduation is required by the University of all candidates for a degree. This fee must be paid before the end of the seventh week of the second term in the senior year.

*Payments*

All payments should be made at the treasurer's office. Checks should be made payable to Northeastern University.

*Refunds*

The University assumes the obligation of carrying the student throughout the year. Instruction and accommodations are provided on a yearly basis; therefore, no refunds are granted except when students are compelled to withdraw on account of personal illness.

*Expenses*

The following tables, compiled from expense returns submitted by the student body, give an idea of freshman expenditures under ordinary conditions.

\*Freshmen taking Chemical Laboratory work pay a Chemical Laboratory deposit of \$10.00 additional.

\*\*Upperclassmen taking Chemical Laboratory work pay a Chemical Laboratory deposit of \$15.00 additional.

\*\*\*This payment is \$127.00 instead of \$152.00 for all upperclassmen enrolled in the College of Liberal Arts prior to September 1, 1938.



*Estimated College Expenses for a Freshman*

Application Fee.....	\$5.
Tuition.....	250.
*General Library and Materials Fee.....	*12.
Student Activities Fee.....	15.
Books and Supplies.....	35.
	<hr/>
	\$317.

*Estimated Living Expenses Per Week for a Freshman  
Residing Away from Home*

Room Rent.....	\$3.75
Board.....	7.00
Laundry.....	1.00
Incidentals.....	2.00
	<hr/>
	\$13.75

The figures given above are approximate and may not exactly fit the case of any one student; but they will be found to represent fairly well the cost to a freshman who lives comfortably but without extravagance.

*Text Books and Supplies*

The Northeastern University Bookstore is a department of the University and is operated for the convenience of the student body. All books and supplies which are required by the students for their work in the University may be purchased at the Bookstore. In addition, the Bookstore also carries a large number of general supplies. The main store is located in Room 41 West Building.

*Part Time Work*

Students who find it necessary to accept part-time jobs, while attending college, may through the Director of Co-operative Work obtain spare-time work doing odd jobs.

No student is justified in assuming that the University will take care of his expenses or guarantee to supply him with work sufficient to meet all his needs.

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\*(In addition there is a Chemical Laboratory deposit of \$10 required of all Freshmen taking Chemistry.)

A student should have available a reserve fund adequate to provide for immediate needs and unexpected contingencies. This should ordinarily amount to at least the first year's tuition plus the student activity and other fees, room rent, and board for several weeks, or a total of about \$500.

### *Examinations*

Examinations covering the work of the term are usually held at the close of each term. Exceptions may be made in certain courses, where, in the opinion of the instructor, examinations are not necessary.

Condition examinations will be given in all subjects during the week of July 8, 1940 for Division A students, and the week of September 2, 1940 for Division B students. Condition examinations are not given for laboratory courses.

Special examinations may be arranged for only by vote of the Administrative Committee and for all such examinations the University requires the payment of a special fee of five dollars (\$5).

### *Grades*

A student's grade is officially recorded by letters, as follows:

- A superior attainment
- B above average attainment
- C average attainment
- D lowest passing grade, poor attainment (the faculty will accept only a limited amount of grade D work towards the Bachelor's degree)
- F failure, removable by condition examination
- FF complete failure; course must be repeated in class
- I Incomplete, used for intermediate grades only and signifies that the student has not had time to make up work lost through excusable enforced absence from class
- L used in all cases of the removal of a failure by condition examination or by attendance at summer term

A student who does not remove a condition before that course is again scheduled, a year later, must repeat the course. A condition in more than one subject involves the loss of the privilege of being a candidate for graduation with the student's class, and may involve the loss of assignment to co-operative work.

The responsibility for the removal of a condition rests with the student, who is required to ascertain when and how the condition can be removed.

### *Dean's List*

A Dean's List, issued at the end of each semester, contains the names of upperclass students who have an honor grade average in all subjects during the preceding period. Freshmen who achieve high scholastic standing are included on a Freshman Honor List, which is published at the end of each grading period. No student under disciplinary restrictions is eligible for either of the honor lists.

### *Report Cards*

Freshman reports are issued at the end of each grading period; upperclass reports, at the end of each semester. In addition, a special report on review subjects pursued during the summer term will be issued immediately at its close. Questions relative to grades are to be discussed with the student's faculty adviser.

Students are constantly encouraged to maintain a grade of work which is of acceptable quality. Parents and students are always welcomed by the Dean of Students, the Director of School Administration, and advisers for conference upon such matters.

Parents or guardians will be notified whenever students are advised or required to withdraw from the University.

### *Conduct*

It is assumed that students come to the University for a serious purpose, and that they will cheerfully conform to such regulations as may from time to time be made. In case of injury to any building, or to any of the furniture, apparatus, or other property of the University, the damage will be charged to the student or students known to be immediately concerned; but if the persons who caused the damage are unknown, the cost for repairs may be assessed equally upon all the students of the University.

Students are expected to observe the accepted rules of decorum, to obey the regulations of the University, and to pay due respect to its officers. Conduct inconsistent with the general good order of the University, or persistent neglect of work, if repeated after admonition, may be followed by dismissal, or, if the offense be a less serious one, the student may be placed upon probation. The student so placed upon probation may be dismissed if guilty of any further offense.

It is desired to administer the discipline of the University so as to maintain a high standard of integrity and a scrupulous regard for truth. The attempt of any student to present as his own any work which he has not performed, or to pass any examination

by improper means, is regarded as a most serious offense, and renders the offender liable to immediate expulsion. The aiding and abetting of a student in any dishonesty is also held to be a grave breach of discipline.

### *Scholastic Year for Seniors*

Seniors of either division, who are candidates for a degree in the current year, must have completed all academic work, class assignments, theses, regular and special examinations, before twelve o'clock noon of the Saturday next following the close of recitations for seniors.

### *Attendance*

Students are expected to attend all exercises in the subjects they are studying unless excused by the Director of School Administration. Exercises are held, and students are expected to devote themselves to the work of the University, between 9:00 A.M. and 5:00 P.M. except for a lunch period, on every week day except Saturday. Saturday classes are held only between 9:00 A.M. and 1:00 P.M.

No "cuts" are allowed. A careful record of each student's attendance upon class exercises is kept. Absence from regularly scheduled exercises in any subject will seriously affect the standing of the student. It may cause the removal of the subject or subjects from his schedule. If he presents a reasonable excuse for the absence, however, he may be allowed to make up the time lost and be given credit for the work; but he must complete the work at such time and in such manner as his instructor in the course may designate.

Laboratory work can be made up only when it is possible to do so during hours of regularly scheduled instruction.

Absences from exercises immediately preceding or following a recess are especially serious and entail severe penalties.

Attendance at all mass meetings of the student body is compulsory. Exceptions to this rule are made only when the student has received permission from the Director of Student Activities previous to the meeting from which he desires to be absent.

### *Housing Regulations*

The University endeavors to exercise due consideration and care for the student's welfare while he is in residence. This necessitates the adoption of the rules and regulations presented herewith.



1. Assignments will be made when the student registers.
2. Students may inspect rooms before accepting an assignment; after reaching a decision students must notify the office of the Director of School Administration, 254W.
3. Students who accept room assignments must retain them for the period of their residence, unless given permission by the Director of School Administration to change.
4. Students are not permitted to live in unsupervised quarters. Under no conditions are groups of students permitted to lease apartments without prior approval of the Director of School Administration and the Dean of the Day Division.
5. Students are not permitted to engage rooms without the prior approval of the University. Those violating this rule will be required to give up such rooms immediately and will be assigned by the University to approved quarters.
6. Violation of any of the above rules is considered a breach of discipline and will be dealt with accordingly.

### *Residence*

It has been found to be much more satisfactory for the student to live within easy access of Boston, especially during periods in college, than to live out twenty-five or thirty miles. The saving of time and effort more than offsets any increased expense. Residence in Boston is advisable, as it gives the student opportunity to use the college facilities outside of class hours, and to confer more easily with his instructors about his college work.

### *Dormitories*

At present the University does not maintain dormitories. Provision, however, is made for students to secure rooms in the vicinity. Many freshmen prefer to take room and board at the fraternity houses, which are all supervised by the University through faculty advisers. For information relative to such housing write the Director of Admissions.

Rooms in the dormitory of the Huntington Avenue Branch of the Boston Y.M.C.A. may be secured only through the Housing Department of the Y.M.C.A. The applicant must present himself in person to a representative of the Department before assignment will be made.

Applicants desiring to room in the Association dormitory are advised to write the Housing Department of the Huntington Avenue Branch, 316 Huntington Avenue, Boston, Massachusetts.

## *Buildings and Equipment*

### *Boston — A Great Educational Center*

THE fact that Northeastern University is in Boston broadens the educational and cultural opportunities of its students. Few other cities in the country are so rich in the finest elements of American life. Many of its historic buildings, such as the Old State House, Faneuil Hall, and the Old North Church, have become museums for the preservation of old documents, paintings, and other collections representative of early Colonial life. The Boston Public Library and the Museum of Fine Arts, both within a few blocks of the University Buildings, are widely noted for their treasures of literature and art. Even nearer to the University is Symphony Hall, home of the world-famous Boston Symphony Orchestra. And the many churches within Greater Boston not only afford the opportunity of hearing distinguished preachers but through their student clubs and young people's societies make possible for students a fine type of social and intellectual life.

### *Location*

The Day Division of the University is at present housed in three buildings: the West Building, the East Building, and the South Building.

These buildings, located on Huntington Avenue, just beyond Massachusetts Avenue, are within easy access of the various railroad stations and the business and residential sections.

A map indicating the location of University buildings is shown on page 32.

### *Transportation*

The chief railroad centers of Boston are the North and South Stations. From the North Station board a car going to Park Street, at which junction transfer to any Huntington Avenue car. At South Station board a Cambridge subway train for Park Street Under. There change to a Huntington Avenue car and alight at the West Building of Northeastern University.

### *East Building*

The East Building of the University is the educational wing of the Boston Y.M.C.A. In it are areas devoted to classrooms, accounting and drawing rooms, the Business Administration Laboratory and several departmental offices. Jacob P. Bates Hall is also in this building. This Hall has a seating capacity of 400, has a large stage, and is suitable for entertainments of various

kinds. It is an important center for various student activities. Here the band and the orchestra have their rehearsals, the glee club gives its entertainments and some of the dramatic work is presented. Numerous student socials and small group dinners frequently are held here.

### *South Building*

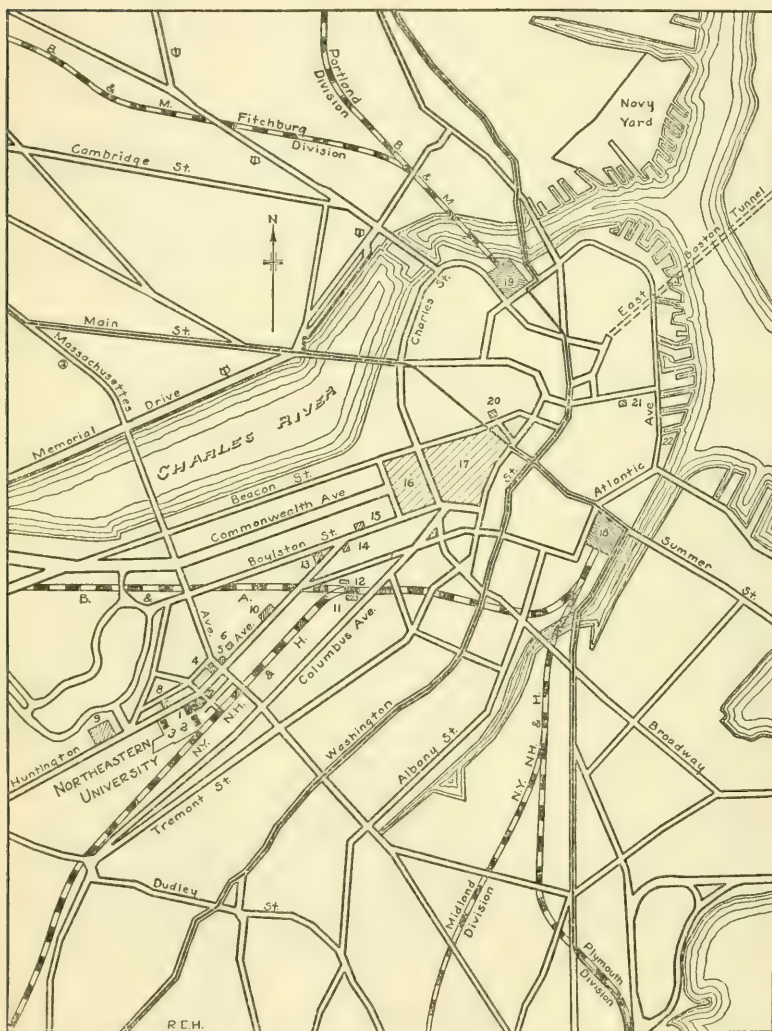
The South Building is located directly behind the East Building. In it are the Biological Laboratory, the Industrial Engineering and Chemical Engineering laboratories, the Hydraulics and Sanitary Engineering laboratory, the Electrical Measurements and Dynamo laboratories, department offices, classrooms, conference rooms and a large drafting room.

### *West Building*

This is the first building of the new Northeastern plant. It comprises a basement, four stories, and a pent-house and provides 100,000 sq. ft. of floor space. The basement is occupied by the Mechanical Engineering Laboratory, machine shop, bookstore, lunchroom, lockers, and a few special classrooms. On the first floor are located the main administrative offices of the University, including the President's office, and classrooms. The General Physics Laboratory and the Advanced Physics Laboratory, classrooms, offices of the Dean of Students, Director of School Administration, and Director of Co-operative Work, and a large, modern, completely equipped lecture hall, seating over 300, are found on the second floor. The third floor is devoted almost entirely to classrooms, a large lecture hall, and combination drawing and lecture rooms. On this same floor the Northeastern Student Union operates two reading rooms, and a lounging room. The fourth floor is occupied by the Organic Chemistry Laboratory, the Inorganic Chemistry and Qualitative Analysis Laboratory, the Quantitative Analysis and Physical Chemistry Laboratory, research laboratories and a large Chemistry lecture hall. Specially equipped drawing rooms and an art room are also on the fourth floor. The penthouse contains a radio laboratory, an astronomy laboratory and a lounge for faculty and alumni.

### *Natatorium*

The Natatorium is one of the finest of its kind and is located in the East Building between the Assembly Hall and Gymnasium, and is easily accessible from the locker rooms of the latter. The swimming pool, 75 feet long by 25 feet wide, is supplied with filtered water and is heated to the proper temperature by an elaborate system of pipes.



MAP SHOWING NORTHEASTERN UNIVERSITY AND VICINITY



*Key to Map*  
*Northeastern University and Vicinity*

1. EAST BUILDING
2. SOUTH BUILDING
3. WEST BUILDING
4. SYMPHONY HALL
5. HORTICULTURAL HALL
6. CHRISTIAN SCIENCE CHURCH
7. NEW ENGLAND CONSERVATORY OF MUSIC
8. BOSTON OPERA HOUSE
9. BOSTON MUSEUM OF FINE ARTS
10. MECHANICS EXHIBITION HALL
11. BACK BAY STATION
12. TRINITY PLACE
13. BOSTON PUBLIC LIBRARY
14. TRINITY CHURCH
15. MUSEUM OF NATURAL HISTORY
16. BOSTON PUBLIC GARDEN
17. BOSTON COMMON
18. SOUTH STATION
19. NORTH STATION
20. STATE HOUSE
21. U. S. CUSTOMS HOUSE
22. ROWES WHARF

### *Gymnasium*

This structure, the funds for which were provided by the relatives of the late Samuel Johnson, is known as the Samuel Johnson Memorial Gymnasium. The gymnasium provides the following facilities: three gymnasiums, a twelve-lap running track, two large exercise rooms, boxing and wrestling rooms, handball and squash courts, bowling alleys, showers, steam baths, massage rooms, and electric cabinet baths.

### *Lecture Assembly Halls*

Through special arrangement, Jordan Hall, Symphony Hall, and the Boston Opera House are made available for assembly purposes. These halls provide ample space for student activity assemblies and for special lectures by noted men. All the students in college at any period assemble for one hour each week throughout the college year. More than half of the assembly sessions are devoted to interests and activities developed by the students themselves. The other assembly periods are devoted to special lectures, sometimes under the direction of the student body and sometimes under the direction of the faculty. The special lectures are devoted to those elements of life which count most in the development of a man's viewpoint and his character.

### *Equipment for Physical Training*

Northeastern has exceptional facilities for all-round physical training. The gymnasium is one of the most complete in New England. Adjoining the building is a large field equipped for athletics. Here are two tennis courts, outdoor gymnasium, rifle range, baseball cage, jumping pits and a track with a 100-yard straightaway.

### *Huntington Field*

Northeastern University owns and operates a large athletic field a short distance from the University. This field, known as the Huntington Field, provides ample facilities for track, baseball, football, and other outdoor sports. A bus service maintained between the field and the University makes it possible for students to get back and forth with a minimum loss of time. A new and commodious field house has recently been erected at the field as well as ten sections of stadium seats capable of seating 2,000 spectators.

### *Design and Drafting Rooms*

The University possesses large, light, and well-equipped drawing rooms for the carrying on of the designing and drafting which forms so important a part of technical work. These rooms are supplied with lockers containing the drawing supplies, files containing blue prints, and photographs of machines and structures that represent the best practice. Drafting room blackboards are equipped with traveling straight edge devices which facilitate speed and accuracy in blackboard demonstrations.

### *Libraries*

The library service of Northeastern University comprises the following units:

1. The Main Library, located on the second floor of the East Building, includes three reading rooms in which are available all of the general reference books, many of the professional and scientific volumes, and all of the periodicals (approximately 100) to which the University subscribes. This library is under the direction of a librarian and two assistants, all of whom have had special training for the work. Main library hours are as follows:

9:00 A.M. to 10:00 P.M. Daily  
2:00 P.M. to 9:00 P.M. Sundays  
12:00 M. to 9:00 P.M. Holidays

2. The Branch Library, also located on the second floor of the East Building, houses most of the books on engineering and management with the exception of those in the field of chemical engineering which, for greater convenience of students in this department, are kept in the Main Library. The Branch Library is open from 8:45 A.M. to 5:15 P.M. daily except Sundays. Students have access directly to the shelves which contain books on reserve for particular courses as well as general reference works.

3. A general reading room and library is maintained by the Northeastern Student Union in Room 356, West Building. The books located here are chiefly non-technical works dealing with contemporary affairs, religious problems, international relations, travel, etc. among which students may browse during periods of relaxation. A few of the literary and religious periodicals are also available in this room.

4. Special departmental libraries are maintained by the various instructional departments in the College of Liberal Arts. These are kept chiefly in the offices of instructors where the books may

be assigned to individual students or to groups for special reports or thesis work. Such books are catalogued in the Main Library but are permanently assigned to the instructional departments concerned.

### *Boston Public Library*

All members of the University, whether resident or non-resident students, have the privilege of taking books from the Boston Public Library and of using the library for general reference and study. Inasmuch as this is one of the best in the country, it presents unusual opportunities to the students. Within a ten minutes' walk from the University, it enables students to have unlimited reference at any time to books and periodicals bearing upon their studies.



# Laboratory Equipment

## Chemistry Laboratories and Equipment

### *The Hayden Memorial Laboratories*

The Chemical Laboratories, located on the fourth floor of the West Building and embodying the most recent developments in materials and design, were given to the University by the Charles Hayden Memorial Fund. The laboratories are adequately equipped for undergraduate instruction in the major branches of chemistry and consist of the following units: (1) General Chemistry and Qualitative Analysis Laboratory, (2) Organic Chemistry Laboratory, (3) Quantitative Analysis and Physical Chemistry Laboratory, (4) Research Laboratories, (5) Dark Room for Photography, and (6) Service Rooms.

### *General Chemistry and Qualitative Analysis Laboratory*

This large and well-lighted laboratory is fully equipped for giving instruction in these undergraduate courses. A hydrogen sulfide room, a well-equipped balance room, a coat closet, and a conference room are a part of this unit.

The laboratory tables are made of light oak and have alberene stone tops. The usual services including water, gas, A.C. and D.C. electricity, and steam are available to the students. The large and well-illuminated fume hoods are of the open front construction type with a special built-in drying cabinet in the base. This cabinet is so constructed that a draft of filtered air is drawn in through screened holes at the base and then passes into the fume exhaust. The hoods are supplied with water, gas, steam, steam cones, 110 V. A.C., 115-230 V. D.C., and also variable D.C. supplied by a battery system.

### *Organic Chemistry Laboratory*

This laboratory is adequately equipped for undergraduate courses in preparation of organic compounds and qualitative organic analysis. The laboratory furniture is made of light oak with alberene stone tops and so arranged that each student has a working space of about six feet. A sink and steam cone are available for each student as well as water, steam, gas, and electricity.

Eight large fume hoods, made of Sheldine stone with leadclad steel bases, enable the student to work in a clean atmosphere. The hoods are well illuminated and contain the same services as the assigned table units. The bases of the hoods serve as drying cabinets and are well insulated to make working conditions at the hood more comfortable.

A large evaporator unit made of alberene stone with ceramic baths, stainless steel tops, and concentric rings facilitates evaporation operations. Provision is made for twenty-seven simultaneous evaporations, arranged in three tiers of nine units. The source of heat is steam. A special overhead glass plate provides for the draining away of overhead condensate to prevent contamination of the solutions being evaporated.

A multiple-unit organic combustion furnace, an ice storage chamber, an ice crusher, cork presses, a Fisher micro-melting point apparatus, a saccharimeter, and other accessories needed in these courses are available.

### *Quantitative Analysis and Physical Chemistry Laboratory*

The laboratory tables and fume hoods are similar to those in the Organic Chemistry Laboratory. Abundant drying cabinet space is available in the hood bases. A large evaporator unit, similar to that in the Organic Chemistry Laboratory, and a sand bath built into one of the hoods provide ample space for evaporations. A large Freas drying oven is available for the drying of analytical samples. The balance room is of modern design and well illuminated by indirect lighting.

A small laboratory, adjacent to the Quantitative Analysis Laboratory, is used for technical analyses such as the determinations of coals, vegetable oils, lubricating oils, gasolines, dairy products, textiles, rubber, and other industrial materials.

Some of the equipment available for this type of work includes the following: a standard A.S.T.M. gasoline distillation apparatus, a closed cup and an open cup flash and fire point apparatus, a Conradson carbon residue apparatus, a muffle furnace, an Abbé refractometer, a three objective B. & L. microscope with an oil-immersion objective, a Kjeldahl distillation outfit, a combustion furnace for iron and steel determinations, rheostats, voltmeters, ammeters, etc. This technical analysis laboratory has a fume hood and several working tables with all the necessary services such as water, gas, steam, vacuum, 110 V. A.C., 115-230 V. D.C. and several variable D.C. circuits supplied from a series of batteries through a distribution panel.

A special laboratory is available for electrolytic work such as potentiometric determinations, electrometric titrations, electrolytic analyses of metals, etc. For this work the equipment includes two L. and N. student potentiometers, a Wilkens-Anderson electrolytic machine, and all the accessories necessary.

The electric current distribution panel, specially designed at the University and constructed by the Holtzer-Cabot Company, is located in this electrolytic laboratory. The current available for distribution at this panel is variable D.C. (2-32 V.) and 115-230

V. D.C. A built-in tungar charger enables the batteries to be kept fully charged at all times. The battery system is located in a separate battery room adjacent to the electrolytic laboratory.

The physical Chemistry Laboratory contains working benches equipped with water, gas, and electricity. A special table containing a thermostat and having D.C. and A.C. connections is used for experiments requiring these services. Apparatus is available for performing experiments on the properties of gases and liquids, thermochemical measurements, and conductivity of solutions. A supply of electrical instruments and special thermometers enables a wide range of special tests to be made as directed.

### *Research Laboratories*

The Chemistry Department has three research laboratories equipped with A.C. and D.C., water, gas, and steam. In one laboratory work can be done on the electrical properties of solutions, solubility effect, and other physical chemistry phenomena. Another laboratory is equipped for work in organic chemistry, and the third can be used for research in analytical or physical chemistry. Electrical instruments and glass apparatus of various types are available for use in the laboratories.

### *Dark Room Equipment*

The photographic dark room is equipped with all the common accessories necessary in photography. A copying camera is available and is especially useful in the making of lantern slides for instructional purposes. An Ellwood enlarger taking a negative as large as 5 x 7 inches, siphon print washers, and several safe lights with interchangeable green, amber, and red filters are available. The room is equipped with gas, electricity, water and distilled water. A large light-proof fan gives adequate ventilation.

### *Service Rooms*

The service rooms consist of the following units: (1) the stock room supplying the main laboratories; (2) storage rooms on the fourth floor for the operating supply of chemicals and apparatus; (3) storage rooms in the basement for the main supply of chemicals and apparatus; (4) solution room; and (5) preparation rooms adjacent to all main lecture rooms.

The stock room is centrally located to feed all the main laboratories. The wall tables, adjacent to the service windows leading into each laboratory, are stocked with the materials necessary for the servicing of those laboratories. The still, for the making of distilled water, and a large storage tank are located in the stock room. The water is piped from this tank into the various laboratories, solution room, and dark room. The distilled water outlets are tin-lined, self-closing bibcocks. Aluminum piping is used throughout.

A storage room for alcohol and inflammable solvents, a storage room for chemicals, and a storage room for apparatus maintain an adequate supply of materials for this stock room. These storage rooms are all connected to the stock room.

The solution room is fully equipped with a laboratory table, a hood, and all the necessary services including distilled water. There is ample shelf room for maintaining a complete supply of chemicals necessary for the preparation of solutions needed in the various laboratory courses.

The two large and well-ventilated storage rooms in the basement are used for storing the main bulk of chemical and apparatus supplies. A freight elevator makes these rooms readily available to the stock room on the fourth floor.

The preparation rooms adjoining lecture halls are equipped with working tables, hoods, and steel storage cabinets. All materials necessary for setting up of lecture demonstrations are stored in these rooms. Tables mounted on wheels are used for carrying the set-up demonstrations into the lecture room.

### *Visual Education Equipment*

Classroom instruction is made more effective by the use of motion pictures and lantern slides. For this purpose there are available projectors for 16 mm. and 35 mm. films. Complete sound motion picture apparatus is also available. New and powerful Delineascopes project the lantern slides. Stationary as well as portable day light screens enable students to take notes while viewing the pictures.

### *Statistics Laboratory*

Students have available for laboratory work in statistics all the commonly used office machines. Principal pieces of equipment include duplicators, typewriters, hand and electric calculators, and both hand and electric adding machines. The laboratory is in charge of a graduate assistant whose work is to maintain the equipment in excellent condition and to give instruction in the use of the various machines.

### *Biological Laboratory*

The Biological Laboratory, a large, well-lighted room containing six dissecting tables, can accommodate thirty-six students.

General equipment includes simple and compound microscopes, binocular dissecting microscopes, microscopical stains, staining solutions, physiological preparations, reagents, chemicals, and glassware.



The zoological collection is especially good. It includes a complete series of invertebrate and vertebrate specimens for dissection and also various demonstration specimens. Among these are complete series of sponges, corals, flat worms, round worms, echinoderms, annelids, mollusks, arthropods, insects, and chordates; a set to demonstrate the general survey of the animal kingdom; a series of heart models of different types of vertebrates and human heart; a series of brain models of the most important vertebrate groups; a set of models to demonstrate the various cell types from human tissues; a set of models to demonstrate the principal steps in somatic mitosis; various other models of invertebrates and vertebrates; zoological dissections in museum jars; skeletal preparations of the most important vertebrate groups; and a complete series of Leuckhart zoological charts.

The histological collection consists of some four hundred mounted microscopical specimens illustrating various forms of invertebrate, vertebrate, and plant tissues, while the botanical collection includes a complete series of both preserved and mounted botanical specimens.

### *Physics Laboratories*

#### *General Laboratory*

The General Laboratory is fully equipped with large working tables, each provided with gas, alternating current, and direct current. Some also have water supplies for such experiments as require a constant flow. A separate balance room, a spectrometer room, a photographic room, and a photometer room are directly connected with this laboratory. A large amount of apparatus for all of the usual physics experiments is available so that the students may work alone thus gaining confidence in laboratory technique. The students work in groups only when the experiment requires more than one person for its proper operation.

#### *Advanced Laboratory*

This laboratory is designed with a view both to precision and flexibility. A special switchboard provides single phase and polyphase alternating current and a variety of direct current potentials to be fed around to various working points. Two separate research rooms and a workshop with lathe, drill press, grinder, and a full set of tools complement the laboratory. Typical of the equipment available are a General Radio impedance bridge, high frequency bridge, wave analyzer, cathode ray oscillograph, and vacuum tube voltmeter, together with standards of resistance, inductance, and capacity manufactured by the same company. A communications type radio receiver, and a large number of meters, amplifiers, discharge tubes, and vacuum tubes are available for electrical work.

In the field of light there are spectrometers, photometers, photocells, a Zeiss ECE330 microscope, polarizing equipment, projectors, etc. A Central Scientific cathetometer measuring to 0.05 mm. over a 97 cm. length is used for precision measurement of large objects. Vacuum pumps, blower, and large amounts of auxiliary apparatus give a well rounded set of equipment for the Advanced Laboratory courses and for research.

### *Astronomy Laboratory*

This laboratory is in the penthouse of the West Building, close to a platform on the roof which gives a very good view free from obstructions. Equipment is available for the grinding of mirrors and the constructing of telescopes, and students are encouraged to build their own instruments. The Astronomy Club holds evening meetings in the laboratory regularly throughout the college year. The Club has made a good start in building up a library in its special field for the use of its membership.

### *Radio Laboratory*

This is also in the penthouse of the West Building and is a completely shielded room high up from the street. Three masts support three horizontal antennae and a vertical ultra high frequency doublet. The transmitters operate on both radio-telephone and radiotelegraph as permitted in the amateur bands by the Federal Communications Commission. The maximum allowable power is available on all bands except the ultra high frequency ones. Full controls and safety devices make the operation simple and without hazard to the operators. Facilities are provided for research. The Radio Club uses this laboratory and supplies most of the operators.

## Student Activities

NORTHEASTERN University regards student activities as an integral part of its educational program. One of the main departments of the University is charged with the responsibility of co-ordinating the various types of activities and of administering the social, musical, literary, and athletic organizations in such a way as to enable each to contribute in a wholesome, worth while manner to student life at Northeastern. Every student is encouraged to participate in such activities as may appeal to him, although a standard of scholarship which is incompatible with *excessive* devotion to such pursuits is required of all students.

Members of the faculty also are interested in the informal aspects of the college program. Teaching loads are kept sufficiently low so that the instructional staff may have ample opportunity to mingle with students outside of the classroom in social activities and on the athletic field. In fact some member of the faculty is appointed to serve as adviser for each student activity. His function is not to dictate how the organization shall be run, but to encourage the students in their extra-curricula endeavors and to give them the benefit of his mature point of view in solving the problems that inevitably arise.

One of the outstanding contributions of the co-operative plan in the field of higher education has been its capacity to develop in students those powers of social understanding that are so essential to success in professional life. At Northeastern the program of student activities is made to contribute to this end in a very real way. It is a conscious aim of the student activities advisers to develop among their advisees those qualities of personality and character which will enhance their usefulness as future professional men and citizens. Students have splendid opportunities to develop administrative and executive ability as leaders of undergraduate organizations. No academic credit is awarded for any student activity. This has been no deterrent, however, to student participation in extra-curricula activities for a recent survey of the undergraduate body showed that over 90% of the enrollment were engaged in one or more forms of student activity.

### Athletic Association

All students in the Day Division are members of the Northeastern University Athletic Association. Policies of the association are passed upon by a Faculty Committee on Student Activities appointed by the vice-president in charge of the Day Division. This committee decides what students are eligible to

participate in athletics, what the various sports schedules shall be, and what students may be excused from classes to represent the University on athletic trips.

The actual administration of the athletic program is in the hands of a second committee, known as the General Athletic Committee, which consists of the Director of Student Activities, the captains and managers of all varsity teams, and the coaches as ex officio members.

The University maintains both varsity and freshman teams in basketball, baseball, football, hockey, and track. Intercollegiate games and meets are arranged with the leading colleges in the East. In addition to intercollegiate athletics the athletic association conducts an intramural program in various sports.

### *Tennis Club*

The Northeastern University Tennis Club is open to all undergraduates. The Department of Student Activities appoints a faculty adviser who assists the members in conducting an intramural tennis tournament. Excellent facilities for tennis are afforded on the courts behind the East Building of the University. In the early spring members of the Tennis Club have access to the gymnasium for indoor practice.

### *Mass Meeting*

The hour from 12:00 to 1:00 on Wednesdays throughout the year is set aside for mass meetings. Attendance is compulsory. Arrangements are made to bring before the student body some of the ablest and foremost thinkers of the day. A list of speakers for the year will be found on page 12 of this catalogue. When the mass meeting hour is not occupied by a University lecturer, class meetings, concerts, or athletic rallies are held instead. Such gatherings are under the direction of the Department of Student Activities.

### *"The News"*

A college newspaper called the "Northeastern News" is published each week throughout the college year by a staff selected from the student body. The copy is prepared, edited, and published by the students themselves with the counsel of a faculty adviser. Opportunity is afforded for the students to express their opinions on subjects relating to study, co-operative work, social events, or topics of the day. Positions on the News staff and promotions are attained by competitive work. The paper is in part supported by advertising, both national and local, and in



part by a portion of the student activities fee. The Northeastern News is a member of the Eastern Intercollegiate Newspaper Association, and sends one of its editors to the annual convention of this association each year. Copies of the News are mailed to upperclassmen when they are at co-operative work, and to freshmen after the close of their college year.

### *"The Cauldron"*

The senior class publishes annually a college year book, "The Cauldron." It is ready for distribution in the latter part of the second semester and contains a complete review of the college year with class histories, pictures of all seniors, of the faculty, and of undergraduate groups, as well as a miscellany of snapshots and drawings contributed by students.

### *The Handbook*

Each fall the Northeastern Student Union issues a conveniently sized student Handbook which is sold to students at a nominal price. The book contains information about the various college clubs, athletic programs, fraternities, rules governing freshmen, lockers, publications and so on. The Handbook also includes a diary for the college year in which it is issued.

### *Student Council*

Student government at Northeastern University is vested in the Student Council, composed of elected representatives from the various classes. The Council is the authority on all matters relating to student policies not definitely connected with classroom procedure. It has jurisdiction, subject to faculty approval, over all such matters as customs, privileges, campus regulations, etc. and meets regularly to consider and act upon issues referred to it for decision. The Dean of Students serves as faculty adviser to the Student Council.

### *The Academy*

The Academy is the honorary society in the College of Liberal Arts. It elects its members from among outstanding students. Election to the honorary fraternity is founded primarily upon scholarship, but before a man is privileged to wear the honorary society insignia he must display an integrity of character and an interest in the extra-curricula life of the University as well as an acceptable personality. Election to the honorary society is the highest honor that can be conferred upon an undergraduate.

### *Fraternities*

There are at present ten local Greek letter fraternities chartered by Northeastern University. Each fraternity is provided with a faculty adviser who is responsible for the proper administration of the fraternity house under the rules and regulations established by the faculty. The list of fraternities in the order of their establishment is as follows:

- |                       |                     |
|-----------------------|---------------------|
| 1. Alpha Kappa Sigma  | 6. Phi Beta Alpha   |
| 2. Beta Gamma Epsilon | 7. Phi Gamma Pi     |
| 3. Eta Tau Nu         | 8. Sigma Phi Alpha  |
| 4. Nu Epsilon Zeta    | 9. Kappa Zeta Phi   |
| 5. Sigma Kappa Psi    | 10. Gamma Phi Kappa |

Elected representatives from each fraternity make up an Inter-Fraternity Council, a body which has preliminary jurisdiction over fraternity regulations. Its rulings are subject to the approval of the Faculty Committee on Student Activities.

### *Professional Societies and Clubs*

To assist in the promotion of social, cultural, and intellectual advancement through informal channels, a number of professional societies and clubs are sponsored. Among others the following organizations of this type are active in the College of Liberal Arts:

#### *International Relations Club*

The International Relations Club was founded in 1932 for the purpose of studying and discussing those national and international events and issues which are daily transpiring within and without our borders and which vitally concern our American life and institutions.

It is the intention of the club to deal with all questions in an impartial and broadminded manner, and to take an intelligent and effective part in promoting international understanding and harmony. The club maintains contacts with similar organizations in other colleges.

Membership is not open to freshmen, and only to those upper-classmen who maintain good scholarship.

#### *Banking Club*

The purpose of this organization is to increase among its members the knowledge of the theory and practice of banking. Any student of Northeastern University, while enrolled in any of the banking courses of the College of Liberal Arts, is eligible to active membership in this club. Meetings are held each ten week period at which banking executives from Greater Boston are invited to discuss current issues in the field of banking.

### *Radio Club*

One of the most popular undergraduate activities is the Northeastern University Radio Club. Members are provided opportunity for code practice and are encouraged to obtain their amateur licenses. The Club owns and operates station W1KBN, a short wave transmitter, located in the Radio Laboratory. Meetings are held about once a month for the discussion of technical matters. Practicing radio engineers are frequently invited to address the Club at evening meetings when students in both divisions may attend.

### *Rifle Club*

Organized a number of years ago, the Rifle Club was so successful that in 1933 riflery was recognized as a minor sport. Members of the club are given instruction in the art of rifle shooting and those students who excel in intra-mural competition are selected for the team representing the University in intercollegiate contests. Practice sessions are held twice a week in the University rifle range. Membership is open to all students.

### *Musical Clubs*

The Department of Student Activities sponsors the following musical clubs: an orchestra, a band, a glee club, a banjo club, and a dance orchestra, for which all students with musical ability are eligible. Membership in the various musical clubs is attained by competitive effort.

Each organization has a faculty adviser and each elects a representative to the Musical Clubs Council. The purpose of this council is to co-ordinate the various musical activities of the Day Division. At the annual Musical Clubs Banquet, held early in the spring, charms are awarded to the leaders and managers of the several clubs and to members who have played over a period of three full years.

The various musical clubs, in conjunction with the Dramatic Club, combine in an annual mid-winter entertainment and participate in occasional outside public engagements throughout the college year.

## *Class Organization and Activity*

Each of the classes in the College of Liberal Arts elects its officers and carries on activities as a class. Freshmen are required to wear the red and black necktie distributed through the Department of Student Activities in order that they may be readily distinguishable to each other and to upperclassmen.

Dances are sponsored by the classes at regular periods throughout the year. One of the high lights of the social program is the junior promenade, held each spring at one of the Boston hotels.

Seniors plan a whole week of activities just prior to Commencement in June.

### *The Northeastern Student Union*

The purpose of the Northeastern Student Union is to carry out the work of a Christian Association within the University. It endeavors to deepen the spiritual lives of Northeastern men through the building of Christian character, to create and promote a strong and effective Northeastern University spirit in and through a unified student body, to promote sociability, and to emphasize certain ethical, social, civic, intellectual, economic, physical, vocational, and avocational values.

All students are encouraged to participate in the activities of the Union, no matter what their religious faith, as the work of the Union is entirely non-sectarian. A good moral character is the only requirement for eligibility to membership. It is hoped that as many students as can will participate in this ideal extra curricula work.

The Union conducts a weekly Chapel Service in the little chapel in the West Building to which all Faculty members and students are invited. The service, which is non-sectarian and voluntary, is held on Thursday mornings from 8:40 to 8:55 o'clock. Many eminent preachers of Greater Boston are engaged to deliver brief addresses.

### *Alumni Association*

The alumni of the Day Division are organized to promote the welfare of Northeastern University, to establish a mutually beneficial relationship between the University and its alumni, and to perpetuate the spirit of fellowship among members of the Alumni Association.

Among the events sponsored by the Alumni Association are the annual meeting and reunion; the annual alumni-varsity basketball game and class reunions. The Association also awards a track trophy each year and contributes to the Alumni Student Loan Fund.

The work of the General Alumni Association is supplemented by the activities of regional alumni clubs. The local clubs meet periodically in their respective centers to discuss matters pertaining to the University and its alumni. Meetings are also held in conjunction with the visits of Northeastern's athletic teams to the various club centers.



## Officers of the Alumni Association

### *President*

HENRY C. JONES, JR.

### *Vice-President*

LINDSAY ELLMS

### *Secretary*

GEORGE A. MALLION

### *Treasurer*

WILLIS P. BURBANK

### *Executive Committee*

CRAWFORD A. GLEN

MAX P. STANDKE

JOHN W. GREENLEAF

RAYMOND D. TELLIER

RICHARD MARSHALL

EARL H. THOMSON

### *Faculty Representative*

G. RAYMOND FENNELL

### *Alumni Executive Secretary*

RUDOLF O. OBERG

### *Alumni Council Representatives*

1913-1920 ERVING H. CLOUGH

1929—S. WHITNEY BRADLEY

JOHN S. LEIGHTON

ELIOT W. HOWARD

JOHN R. MCLEISH

1930—DEXTER W. LOVELL

1921—MARTIN BROWN

ALEXANDER G. MACGREGOR

1922—RICHARD B. BROWN

1931—HARRY A. GILL

1923—JOSEPH E. JOHNSON

1932—SIDNEY A. STANDING

1924—FARNHAM W. SMITH

1934—J. LLOYD HAYDEN

1925—JAMES W. DANIELS

1935—HARTWELL G. HOWE

1926—EARL L. MOULTON

1936—FREDERIC S. BACON, JR.

1927—WILLIAM J. URQUHART

1937—JOHN F. SHEA

1928—WILLIAM E. R. SULLIVAN

1938—CHESLEY F. GARLAND

## Admission Requirements and Freshman Programs

Applicants for admission to the freshman class without restrictions must qualify by *one* of the following methods:

1. Graduation from an approved course of study in an accredited secondary school, including prescribed subjects listed below.
2. Completion of fifteen acceptable secondary school units with a degree of proficiency satisfactory to the Department of Admissions.
3. Examinations.

(Certificate of entrance examinations passed for admission to recognized colleges and technical schools may be accepted.)

### Prescribed Subjects for Admission

#### *College of Liberal Arts*

The College of Liberal Arts offers courses leading either to the A.B. or to the S.B. degree. According to the degree which he expects to receive, the student will present for admission one or the other of the groups of prescribed subjects listed below.

<i>A.B. Curriculum</i>		<i>S.B. Curriculum</i>	
	Units		Units
English	3	English	3
Foreign Language (Ancient or Modern)	3	†Mathematics	2 or 3
Social Studies	2	Natural Science	1
*Electives	7	*Electives	8 or 9
	15		15
Total		Total	

A unit is a credit given to an acceptable secondary school course which meets at least four times a week for periods of not less than forty minutes each throughout the school year.

Entrance examinations are not required of students whose transcripts of record are acceptable, but the Committee on Admission reserves the right to require a candidate to present himself for examination in any subjects that it may deem necessary because of some weakness in his secondary school record.

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\*Not less than four of the "electives" must be in one or more of the following academic branches: Languages, Natural Science, Mathematics, Social Sciences, History.

†Students expecting to major in chemistry, mathematics, or physics must offer 3 units.

### *Other Requirements*

These formal requirements are necessary and desirable in that they tend to provide all entering students with a common ground upon which the first year of the college curriculum can be based. But academic credits alone are not an adequate indication of a student's ability to profit by a college education. Consequently the Department of Admissions takes into consideration, along with the formal requirements stated above, many other factors regarding candidates for the freshman class. A student's interests and aptitudes in so far as they can be determined, his capacity for hard work, his attitude toward his classmates and teachers in high school, his physical stamina, and most important of all — his character, all these considerations are carefully weighed. In this way the University seeks to select for its student body those who not only meet the academic admission requirements but who also give promise of acquitting themselves creditably in the rigorous program of training afforded by the co-operative plan and of later becoming useful members of society.

### *Personal Interview*

Candidates for admission should communicate with the Director of Admissions, who will advise them frankly on the basis of past experience. A personal interview is always preferred to correspondence, and parents are urged to accompany their sons whenever this is possible. Effective guidance depends in large measure upon a complete knowledge of a candidate's background and problems. Parents invariably are able to contribute much information that aids the admissions officer in arriving at a decision. In general, a student is likely to be more successful in his college work if he does not enroll under the age of seventeen.

### *Application for Admission*

Each applicant for admission is required to fill out an application blank whereon he states his previous education, as well as the names of persons to whom reference may be made in regard to his character and previous training.

An application fee of five dollars (\$5) is required when the application is filed. This fee is non-returnable.

The last page of this catalog is in the form of an application blank. It should be filled out in ink and forwarded with the required five dollar fee to Director of Admissions, Northeastern University, Boston, Mass. Checks should be made out to Northeastern University.

Candidates are urged to visit the office of Admissions for personal interview if it is possible for them to do so before sub-

mitting their applications. Office hours of the Department are from 9:00 A.M. to 4:00 P.M. daily; Saturdays to 12:00 M. The Director of Admissions will interview applicants on Wednesday evenings but by appointment only.

Upon receipt of the application, properly filled out, the College at once looks up the applicant's references and secondary school records. When replies have been received to the various inquiries, the applicant is informed as to his eligibility for admission.

Applications should be filed not later than May first, thus allowing ample time for the investigation of the applicant's secondary school records before he enrolls in the College.

The University reserves the right to place any entering student upon a period of trial. Whether he shall be removed from trial at the end of this time or requested to withdraw will be determined by the character of the work he has accomplished and his conduct during this trial period.

### *Registration*

Eligibility for admission does not constitute registration. Freshmen register at the University on September 7, 1939. No student is considered to have met the requirements for admission until he has successfully passed the required physical examination.

### *Advanced Standing*

Students transferring from approved colleges will be admitted to advanced standing provided their records warrant it. Whenever a student enters with advanced standing and later proves to have had inadequate preparation in any of his prerequisite subjects, the Faculty reserves the right to require the student to make up such deficiencies.

Applicants seeking advanced standing should arrange to have transcripts of their previous college records forwarded with their initial inquiry.

### *Entrance Condition Examinations in Boston*

Students who are deficient in required units for admission may remove these deficiencies by examination. Such examinations are held at the University unless special arrangements are made with the Department of Admissions to administer them elsewhere.

Students are advised to take such examinations on the earliest possible date in order that any deficiencies which they fail to clear may be made up in time to permit registration with the desired class and division.



The time of examinations is as follows:

10:00 A.M. to 12:00 M.

1:00 P.M. to 3:00 P.M.

During the current year examinations will be given on the following days: June 7, 1939; August 30, 1939. All other examinations will be given by special assignment.

### *Freshman Orientation Period*

In order that freshmen may be ready to pursue their academic work with greater composure and be somewhat acclimated preceding the beginning of scholastic work, three or four days prior to the first term are devoted to a freshman orientation period. During this time freshmen are advised as to choice of program, and assisted in every way possible in order that they may be prepared to begin serious study and work on the first day of the college term. All freshmen are required to attend all exercises at the University scheduled during the orientation period.

An optional feature of the orientation program is the freshman camp conducted under the auspices of the Student Union. The camp is planned particularly for out-of-town students, although commuters are welcomed. It aims at providing a stimulating and wholesome environment under vacation conditions in which the new men may become acquainted with one another and with members of the faculty. The camp site on Lake Massapoag in the northern part of Massachusetts is admirably equipped for this purpose, having ample facilities for baseball, basketball, tennis, boating, and swimming. The cost of the two days at camp is nominal and most freshmen avail themselves of this opportunity for recreation prior to the beginning of the college year.

### *Physical Examination*

All freshmen receive a thorough physical examination at the University during the orientation period. All students are expected to report promptly at the appointed time for examination. Those who fail to appear at the appointed time will be charged a special examination fee of two dollars (\$2).

### *Freshman Counsellors*

At the time of his matriculation each freshman is assigned to a personal counsellor, a member of the faculty, who serves as an interested and friendly counsellor during the perplexing period of transition from school to college. A personal record card is prepared for each student, containing certain pertinent data from his preparatory school record, the report of his physical examina-

tion at Northeastern, his scores on psychological tests, the results of placement examinations, and any special notes which may be of significance in counselling work. The aim of the freshman counselling system is primarily to assist students in making an effective start upon their programs and secondarily to acquire for the later use of guidance officers a fund of significant information relative to every freshman. Counselling is under the direction of a Dean of Students, assisted by a clinical psychologist, who handles the diagnosis and remedial treatment of problem cases.

### *Individual Attention to Freshmen*

Not only is attention given to the problems of the student in connection with his studies, but also the service is extended to include help upon any problem in which advice is needed and desired, the aim being to guide the student to the fullest possible personal development.

The college record of each student is carefully analyzed in the light of what could reasonably be expected of him, considering his previous school record, his score on the psychological test, and the other factors in his situation. If he is not doing his best work, an investigation is made to determine and eliminate the causes. If he is doing as well as could be expected or better, he is encouraged to continue to do so. In other words, each student is held to the most effective work possible, through advice, encouragement, and assistance.

### *Outline of Freshman Courses*

The first year is a period of full time study during which the student must demonstrate his fitness for the program which he has elected. Students who are unsuccessful in the basic courses of the freshman year will not be permitted to continue with their advanced program, but will be advised to change their goal and type of training. In some instances this will mean change to another curriculum at Northeastern; in others, transfer to another institution. *The freshman courses are so arranged as to permit change of objective at the end of the first year with a minimum loss of time.*

## *Freshman Programs*

### 1. For Liberal Arts students majoring in English, Economics, and Sociology.

No.	Course	S.H.	No.	Course	S.H.
H 1	History of Civilization	3	H 2	History of Civilization	3
S 1-A	Intro. to Social Sciences	4	S 2-A	Intro. to Social Sciences	4
P 1-A	Survey of Physical Science.....	4	P 2-A	Survey of Physical Science.....	4
E 1	English I.....	3	E 2	English I.....	3
G 1 or F 3	German or French. ...	3	G 2 or F 4	German or French. ...	3
Ps 1-A	Orientation.....	-	PE 2	Hygiene.....	1
PE 3-4	Physical Training.....	-	PE 3-4	Physical Training.....	-
		17			18

### 2. For Liberal Arts students majoring in Chemistry, Mathematics, and Physics.

M 1, M 3	Algebra, Trigonometry	5	M 4	Analytic Geometry.....	5
P 1	Physics I.....	3	P 2	Physics I.....	3
Ch 1	General Chemistry.....	4	Ch 2	Inorganic Chemistry...	3
E 1	English I.....	3	E 2	English I.....	3
G 1 or F 3	German or French.....	3	G 2 or F 4	German or French.....	3
Ps 1-A	Orientation.....	-	PE 2	Hygiene.....	1
PE 3-4	Physical Training.....	-	PE 3-4	Physical Training.....	-
		18			18

## THE COLLEGE OF LIBERAL ARTS

### *Aims and Methods*

THE Northeastern University College of Liberal Arts aims to instruct men in the art of living and to lay down a systematic foundation of knowledge upon which, as graduates, they may continue with more specialized training, either by formal graduate study or by independent learning and experience.

Liberal as this program is, however, it develops for the student genuinely practical values. The student is encouraged from the beginning of his freshman year to consider the problem of his future vocation, to select courses having the most useful bearing on his intended life-work, and to take advantage of opportunities for practical experience in his chosen field.

Through the Northeastern plan of co-operative education for upperclassmen, the student makes early contact with actual working conditions and profits by the wholesome experience of earning at least part of the money to defray his own college expenses. Viewed as a whole, then, his college years surround him not with an artificial atmosphere of cloistered scholarship but with an environment very close to that which he will enter after graduation. Having completed his course, if he has made good use of his opportunities, he will be mentally capable and, what is no less important, readily employable.

### *The Elective System*

So that each student may plan a college program to suit his own interests and aptitudes and to prepare him for the work he intends to take up after graduation, a wide range of elective courses is offered. This does not mean that students are free to select courses indiscriminately. A definite series of basic courses in each program of instruction is required by the faculty, in order that every student may be insured a proper foundation in his major field. These required courses are largely concentrated in the first two years of the curriculum.

Throughout the college course the problem of the student's vocational future is emphasized by the adviser. Together the adviser and student consider possible careers open to the student. If the latter expects to pursue graduate or professional studies, he is guided in a choice of courses which will best prepare him for his advanced work. If the student must begin to earn his livelihood immediately after graduation, the various fields open to him are carefully considered in the light of his ability and inclination.



Students who plan to enter professional schools are urged to familiarize themselves with the requirements for admission to the particular schools in which they are interested.

Those students who wish to enter business directly after graduation from the College of Liberal Arts may take courses offered in the Northeastern University College of Business Administration for which they have the necessary prerequisites, provided they fulfill all the curricular requirements of the College of Liberal Arts in regard to freshman courses, language courses, and major and minor fields.

## *Requirements for Graduation*

The following requirements must be fulfilled by all candidates for the A.B. or S.B. degree:

1. To be graduated, a student must have completed a total of not less than 125 semester hours of academic work with a degree of proficiency acceptable to the faculty. (One semester hour comprises three clock hours of work per week over a period of from fifteen to eighteen weeks.) Usually this represents one hour of recitation or lecture and two hours of outside preparation. In drawing, laboratory, or field work, however, a larger part of the time is given to class work.

College attendance over a five-year period is normally needed to fulfill this requirement, although the work may be completed in four years by students who elect full time study instead of the co-operative plan for one or more upperclass years. Students who undertake co-operative work assignments must also meet the requirements of the Department of Co-operative Work before they become eligible for their degrees.

No student transferring from another college or university is eligible to receive the A.B. or the S.B. degree until he has completed at least one academic year at Northeastern immediately preceding his graduation.

2. At least 30 semester hours must be completed in a major field of concentration.
3. From 12 to 16 semester hours must be completed in each of two other fields which are called the minor fields.
4. All candidates for the A.B. degree must offer at least three units of foreign language for admission and complete at least two full year courses in foreign languages in their college programs.

5. All candidates for the S.B. degree must complete at least two full year courses in foreign language in their college programs.
6. Candidates who have achieved distinctly superior attainment in their academic work will be graduated with honor. Upon special vote of the faculty a limited number of this group may be graduated with high honor or with highest honor. Students must have been in attendance at the University at least two years before they may become eligible for graduation with honor, with high honor, or with highest honor.

### *Curricula in Liberal Arts*

The following fields of study are approved as fields of concentration, or major fields, in the College of Liberal Arts: English (with an option in journalism), economics and sociology, mathematics and physics, and chemistry.

Students may elect their minor fields of study after consultation with their faculty advisers. The following subjects are available as minors: biology, education, French, German, history and government, physical education, and psychology. Any of the major fields listed above may also be chosen as minors. Students in the College of Liberal Arts may also elect a limited number of courses from among those offered in other colleges of the Day Division such as advertising, contracts, marketing, industrial management, finance, accounting, and similar subjects. For a complete statement of admission requirements and freshman programs see pages 50 to 55 of this catalog.

### *Pre-legal Curricula*

Effective September 1, 1938, by a ruling of the Supreme Judicial Court of Massachusetts, in order to be eligible for examination for admission to the Bar an applicant must have completed certain general educational requirements before beginning his legal education. Briefly, this general education must comprise graduation from a four-year high school and the completion of not less than half of the work accepted for the Bachelor's degree in a college approved by the Board of Bar Examiners.

Two separate programs of pre-legal study, both of which meet one-half of the semester hour requirements for the Bachelor's degree, are offered by the College of Liberal Arts.

One of these curricula is designed for young men who are able to give their full time to college life for the two-year period necessary to complete the pre-legal requirements. It comprises one year of thirty-five weeks and a second year of thirty weeks and is specifically adapted to the needs of full-time students. The academic work is articulated directly with that of the secondary schools from which these young men have recently been graduated.

It is paralleled by a wholesome program of athletics and social activities which contribute much to the development of young college men.

The other pre-legal curriculum is built around the needs of mature employed men and women who can give only part time to college work. While this evening course of study meets the same academic standards and includes the same number of semester hour credits as that offered in the day, less emphasis is given to student activities and the courses of instruction are chosen to meet the needs of adult students. Class attendance three nights a week, forty weeks each year, for three years is needed to cover the curriculum requirements.

Both day and evening curricula lay much emphasis upon the social sciences, English, and history, because of the value of thorough grounding in these fields for the prospective student of law.

On the pages which follow are given the synopses of courses offered in the several curricula of the College. Courses offered in the first semester bear odd numbers, and those offered in the second semester bear even numbers.

The term pre-requisite indicates a course that must be passed by a student before he will be permitted to register for an advanced course.

Freshman courses extend over a full semester of 18 weeks. Upperclass courses are uniformly 10 weeks in length each term.

The University reserves the right to withdraw any course in which there is insufficient enrolment.

## *Biology*

PROFESSOR STANLEY D. MIROYIANNIS and ASSISTANTS

### *B 1 General Zoology*

An introductory course dealing with the basic principles of zoology. A survey of the main types of animals; their classification, structure, life history, distribution, and economic value. The laboratory work illustrates the lectures.

*4 semester hour credits*

### B 2 General Botany

An introductory course dealing with the basic principles of botany. A general survey of the more important plant types throughout the vegetable kingdom; their classification, structure, life history, distribution, and economic value. The fundamentals of plant physiology are stressed. The laboratory work illustrates the lectures.

*4 semester hour credits*

### B 3 Invertebrate Zoology

This course deals with the comparative development and structure of the organic systems of invertebrate animals as represented by the following phyla: Protozoa, Porifera, Coelenterata, Platyhelminthes, Nemertea and Nematelminthes; their biological and ecological relationships. The laboratory work consists of detailed dissection of representative types.

*Pre-requisite: B 1*

*2½ semester hour credits*

### B 4 Invertebrate Zoology

Continues and presupposes course B 3. In this part of the course, the lectures deal with the comparative development and structure of the various organ systems of invertebrate animals as represented by the following invertebrate phyla: Annelida, Echinodermata, Arthropoda and Mollusca; their biological and ecological relationships. The laboratory work consists of detailed dissection of representative types.

*Pre-requisite: B 1*

*2½ semester hour credits*

### B 5 Vertebrate Zoology

This course deals with the comparative anatomy of the integument; the skeletal, muscular, digestive and respiratory systems of the principal classes of Vertebrates. The laboratory work consists of detailed dissection of representative types.

*Pre-requisite: B 1*

*2½ semester hour credits*

### B 6 Vertebrate Zoology

Continues and presupposes course B 5. In this part of the course, the lectures deal with the comparative anatomy of the vascular, excretory, reproductive and nervous systems together with the organs of special sense of the principal classes of Vertebrates. The laboratory work consists of detailed dissection of representative types.

*Pre-requisite: B 1*

*2½ semester hour credits*



### B 7 General Physiology

A course which deals with the functions of the human body.

*Pre-requisite:* B 1, B 5, B 6

2 semester hour credits

### B 8 Genetics and Eugenics

A course which deals with the laws of variation and inheritance; their application to man and to domestic animals and plants.

*Pre-requisite:* B 1, B 2

2 semester hour credits

### B 9 Animal Histology

The lectures deal with the normal microscopic anatomy of the cell; histogenesis; and the fundamental tissues of various invertebrates and Vertebrates. The laboratory work illustrates the lectures by means of microscopic preparations.

*Pre-requisite:* B 1, B 5, B 6

2 semester hour credits

### B 10 Animal Histology

Continues and presupposes course B 9. In this part of the course, a detailed study is made of the normal microscopic anatomy of the organs of the lower and higher Vertebrates. The laboratory work illustrates the lectures by means of microscopic preparations.

*Pre-requisite:* B 1, B 5, B 6

2 semester hour credits

### B 11 Vertebrate Embryology

The lectures deal with the general embryology and the early stages of development of Amphioxus and of the Teleost, frog, chick and pig. The laboratory work is devoted to the study of embryos in toto and in sections of the early stages of the frog and of the chick.

*Pre-requisite:* B 1, B 5, B 6

2 semester hour credits

### B 12 Vertebrate Embryology

Continues and presupposes course B 11. In this part of the course, the lectures deal with the later stages of development of the chick and pig, with comparisons with the frog. The laboratory work is devoted to the study of embryos in toto and in sections of the later stages of development of organs and organ systems in the chick and pig.

*Pre-requisite:* B 1, B 5, B 6

2 semester hour credits

# Chemistry

PROFESSORS VERNON, STRAHAN, MCGUIRE, and ZUFFANTI;  
DR. LUDER; MESSRS. BROWN, GIELLA, HANSEN, and DUBOIS

## Ch 1 Inorganic Chemistry

A course designed for those who have had chemistry before entering college. The fundamental idea of matter and energy; the properties of gases, liquids, and solids; molecular weights, equations; atomic structure; classification of the elements; ionic reactions; and the chemistry of the non-metals are among the topics which are covered in the course. Two lectures, one recitation, and a three-hour laboratory period comprise the weekly schedule of instruction.

*4 semester hour credits*

## Ch 2 Inorganic Chemistry

A continuation of Ch 1 Inorganic Chemistry. Modern ideas covering the theory of solutions of electrolytes are discussed together with experimental facts. The chemistry of the metals is covered thoroughly, and time is devoted to an introduction to organic chemistry. The latter part of the course is given to qualitative analysis with particular emphasis on the laboratory work. The plan of instruction is identical with that of Ch 1.

*4 semester hour credits*

## Ch 3 Inorganic Chemistry

A course intended for those who have not had chemistry in high school. The content is similar to that of Ch 1, but the treatment is such that no prior knowledge of chemistry is necessary. Two lectures, one recitation, and a three-hour laboratory period comprise the weekly schedule of instruction.

*4 semester hour credits*

## Ch 4 Inorganic Chemistry

A continuation of Ch 3 with a course content and schedule of instruction similar to Ch 2.

*4 semester hour credits*

## Ch 9 Qualitative Analysis

The object of this course is to give the student knowledge of the various fundamental qualitative laws and principles. A portion of the time is devoted to the formulation of numerical terms which are essential to understanding mass law action, chemical equilibrium, ionic equilibria, solubility product, hydrolysis, and oxidation and reduction constants.

It not only furnishes a definite and exact working basis but leads, ultimately, to independent and original thinking, thus preparing the way to more difficult problems. Little real intelligent progress can be made unless these theories are understood, properly appreciated, and correctly applied.

The lectures are supplemented by recitations and quizzes and outside assignments devoted to the solution of problems.

*2 semester hour credits*

### *Ch 10 Qualitative Analysis*

The essential features of the course are a system of lectures, recitations, and quizzes carefully co-ordinated with laboratory work. The object is to train the student in exact methods, with an attempt to make clear the reason for each operation and the ability to apply them to the laws of chemical equilibrium, especially the principles relating to solubility, ionization, complex ion formation, and oxidation and reduction of substances in solution.

Special attention is given to methods that will provide for a reliable detection of a small quantity of any constituent in the presence of a large quantity of any other constituent.

A part of the course is a method of systematic analysis of getting substances into solution by solvent and fusion treatments.

The importance of exact method of qualitative detection can not be over estimated. It supplies the fundamental data upon which industrial operations may be successfully carried out.

*2 semester hour credits*

### *Ch 11 Qualitative Analysis Laboratory*

The object of the laboratory exercises is to cultivate scientific attitude and habit of thought, and to increase power of acquiring knowledge. The work permits the student accurately to observe and study the phenomena concerned with certain chemical changes of fundamental importance and to connect these observations with the theoretical discussions held in the lecture and recitation classes in inorganic chemistry.

Careful manipulations, thoroughness in observation, and accuracy in arriving at conclusions are required of each student. Neat and satisfactory notes are considered an essential part of the work.

*Pre-requisite: Ch 2*

*1 semester hour credit*

### *Ch 12 Qualitative Analysis Laboratory*

The experiments in this course, illustrating the solubilities of various compounds, are so selected and logically arranged that they may later be combined to form a complete system of analysis.

In connection with each experiment, care is taken that the student understands the reactions and theory involved. The latest developments in qualitative tests are used frequently. From time to time unknown solutions and substances are given to the student for analysis to emphasize the practical aspects of the work.

This course also includes the reactions and separations of the anions, methods of solution, and actual qualitative analyses of various industrial products and naturally occurring materials.

*1 semester hour credit*

### *Ch 15 Quantitative Analysis*

It is the purpose of this course to give to the student a realization of the scientific development of quantitative methods. Each of the major operations such as weighing, measurement of volumes, titration, filtration, ignition, and combustion, is considered from the standpoint of the theoretical principles involved, and with due consideration of the manipulative technique necessary.

This is followed by the combination of these operations and their application to actual analysis including a comprehensive study of volumetric methods and of the more elementary parts of gravimetric analysis.

As the correct calculation of analytical results is of no less importance than the actual procedures of analysis, a number of problems form a very important part of the course.

*Pre-requisite: Ch 3*

*1 semester hour credit*

### *Ch 16 Quantitative Analysis*

This course, a continuation of Ch 15, is similarly conducted. After consideration of the more advanced parts of gravimetric analysis and of systematic mineral procedures, the remainder of the course consists of a critical discussion of common technical methods, including the standard ones for the analysis of steel, non-ferrous alloys, fuels, oils, gas, water, fertilizers, foods, etc.

*Pre-requisite: Ch 15*

*2 semester hour credits*



### Ch 17 *Quantitative Analysis Laboratory*

This is a laboratory course intended to illustrate by actual use the various analytical methods considered in Ch 15. After certain preliminary experiments designed to acquaint the student with the apparatus used, volumetric analysis, including acidimetry and alkalimetry, oxidation, reduction, and precipitation methods are taken up. This is followed by simple gravimetric analysis.

*2 semester hour credits*

### Ch 18 *Quantitative Analysis Laboratory*

This course includes not only the usual illustrative gravimetric determinations, but also electrolytic, electrometric, combustion, and optical methods.

In the latter half of the course actual industrial methods are used so that at its completion the students should be able to perform satisfactorily any ordinary analysis.

*2 semester hour credits*

### ChE 25 *Industrial Chemistry*

The more important industrial processes are studied with a view to the general chemistry involved and to the various types of apparatus necessary to carry out the chemical reactions. The student is given a broad survey of the field of chemical industry and a knowledge of the relationships of the different industries to one another. The salt and heavy acid industries are studied intensively and the uses of their products in other industries are carefully considered. Special attention is given to the economics of the chemical industry. Lectures, assigned readings, and reports presented by individual students upon assigned topics are included in the course.

*Pre-requisite: Ch 2*

*1 semester hour credit*

### ChE 26 *Industrial Chemistry*

This course is a continuation of ChE 25 and covers the alkali and miscellaneous inorganic industries.

*Pre-requisite: ChE 25*

*1 semester hour credit*

### Ch 31 *Organic Chemistry I*

This course includes a study of the recognized basic principles of the aliphatic organic compounds. An attempt is made to present the material from a connected and understandable viewpoint by a study of the close relationship which exists between the various

classes of compounds. Considerable emphasis is placed on genetic charts and synthesis of typical classes of compounds, by which the class being studied is related to classes studied previously.

Some of the more important compounds are studied in detail. The industrial applications of many of the theoretical principles of the subject are considered in order to acquaint the student with the practical nature of organic chemistry.

*2 semester hour credits*

### Ch 32 Organic Chemistry II

This course is a continuation of Ch 31, but deals with the preparation and characteristic reactions of the aromatic organic compounds. Special attention is given to polymerization, diazotization, dyes, and the use of catalyst, nitration, and sulfonation.

A few of the more important hetrocyclic compounds are studied.

*2 semester hour credits*

### Ch 33 Organic Chemistry Laboratory I

This course consists of a selected number of preparations and includes the more important manipulations designed to teach the student the laboratory technique involved in organic chemical work such as fractional distillation, steam distillation, extraction, etc.

These preparations familiarize the student with the general types of chemical changes such as esterification, halogenation, nitration, reduction, diazotization, and saponification.

One of the important features of the course is to teach the student a definite method of keeping notes of his laboratory work, all detailed reactions, calculations, and also the answers to a set of questions on each experiment performed.

*1 semester hour credit*

### Ch 34 Organic Chemistry Laboratory II

This course is a continuation of Ch 33. The preparations in this course serve to acquaint the student with such types of chemical reactions as sulfonation, the Grignard reaction, the Perkins reaction, Skraup's synthesis, the Friedel-Crafts' reaction, and the preparation of dyes.

In addition to the manipulative techniques taught in Ch 33, this course introduces the use of vacuum distillations, fractional crystallization, and separations by physical and chemical means.

Laboratory notes and answers to questions are recorded as in Ch 33.

*1 semester hour credit*

### Ch 35 Industrial Organic Chemistry

An attempt is made to present in a systematic manner the principles and practice of the more important and well defined reactions in organic synthesis.

Attention is directed not only to the chemistry and products of reaction but equally to the contributing factors which lead to efficient operation. The course includes an examination of the reactants, an inquiry into the mechanism of the reaction, a knowledge of the chemical and physical factors involved, observations regarding the design and construction of equipment, and, finally, a study of typical technical applications.

*Pre-requisite: Ch 32*

*2 semester hour credits*

### Ch 36 Industrial Organic Chemistry

This course is a continuation of Ch 35. An attempt is made to co-ordinate the study of fundamental principles of organic synthesis with the requirements of industrial plants.

The latter part of the course is devoted to a study of the synthesis of the terpenes and their genetic relationships.

*2 semester hour credits*

### Ch 37 Organic Chemistry Laboratory III

The purpose of this course is to familiarize the student with the chemical and physical tests used in qualitative organic analysis. A series of experiments, based on the classification of reactions of organic compounds, serves as a basis for the examination of simple liquid and simple solid compounds and the preparation of suitable derivatives of them.

This system makes possible the collection of sufficient data on each problem for a comprehensive written report. The student is placed on his own responsibility and is requested to use and acquaint himself with the chemical literature and standard reference books available on this subject in libraries.

*1½ semester hour credits*

### Ch 38 *Organic Chemistry Laboratory IV*

This course is a continuation of Ch 37 but is much broader in scope. It includes the examination of liquid and solid mixtures of two and three components each. This is followed by the analysis of one or more industrial organic compounds, depending on the time available.

A systematic procedure is employed in the separation, identification, and preparation of the derivatives of the mixtures. Library work and written reports are an essential part of this course.

*1½ semester hour credits*

### Ch 41 *Library Research Problems*

This course is intended to acquaint the chemical student with the constantly increasing volume of scientific literature pertaining to the field of chemistry. While intended primarily as preparatory to thesis work, it furnishes also a very valuable tool for use in later industrial and scientific work.

After a brief outline of the entire field of scientific literature and a description of various methods of library procedure, the various available sources of scientific information are investigated. Original sources such as scientific journals, government publications, patents and manufacturers' catalogs are first considered. A survey of secondary sources follows, including a study of abstracting journals, reviews, bibliographies, handbooks, standard reference books, encyclopedias, etc. A series of individual library problems, in which the student is required to apply the information obtained in the classroom, forms a very important part of the course.

*1 semester hour credit*

### Ch 43 *Physical Chemistry I*

This course begins with a short resume of the field of physical chemistry, and its relationship to the other courses in chemistry and chemical engineering. Following this, atomic and molecular weights, and the properties of gases, liquids, solids, ionized, non-ionized, and colloidal solutions are taken up. Throughout this course, as well as in Physical Chemistry Ch 44, quantitative methods are emphasized and the solving of a number of illustrative problems is required.

*2 semester hour credits*



### Ch 44 *Physical Chemistry II*

This course, which is similar in character to Physical Chemistry Ch 43, includes a consideration of the following topics: rates of reaction, homogeneous and heterogeneous equilibrium, and thermochemistry. From time to time industrial and technical applications are considered from the standpoint of physical chemistry, but in such a way as not to lose sight of the broad field of the subject.

*2 semester hour credits*

### Ch 45 *Physical Chemistry III*

This course, which is similar in character to the preceding ones, considers such portions of the fields of electrochemistry and thermodynamics as are of value to chemical engineers. The laboratory work which accompanies this and the succeeding course is designed not only to illustrate the work of the classroom but also serves to review that of the previous courses.

*Pre-requisite: Ch 44*

*2 semester hour credits*

### Ch 46 *Physical Chemistry IV*

In this course which is of a different nature from those which precede it, the subjects of photochemistry, radioactivity, periodic classification and electrical theory of matter are taken up and as much of the elements of the quantum theory as the time available will allow.

*2 semester hour credits*

### Ch 47 *History of Chemistry*

This course deals with the development of chemistry from the earliest times to about the nineteenth century. The important theories of chemistry and the personalities of the great men who have contributed to that development are covered in the lectures and assigned readings.

It is required that students electing chemistry as their field of concentration elect this course.

*Pre-requisite: Ch 2*

*1 semester hour credit*

### Ch 48 *History of Chemistry*

In this course a study is made of the outstanding chemists and accomplishments in chemistry covering the period from about the beginning of the nineteenth century up to the present time.

This course is not dependent on Ch 47 and can be treated as a separate unit.

*Pre-requisite: Ch 2*

*1 semester hour credit*

## Co-ordination

PROFESSORS NIGHTINGALE AND EVERETT

### C 11 *Business Conference*

This course is designed to bring about analytical thinking and systematic planning of the "after-graduation-employment" problem. It is conducted as an open discussion class by the Department of Co-operative Work. Each Co-ordinator has in class those students who have been placed and supervised on co-operative work by him. Each student analyzes and applies to himself as the "product" the fundamental principles of merchandizing. Prominent men who are leaders in the fields of employment counselling, business, or engineering present the employers' viewpoints. Thus the graduating seniors are brought face to face during the year with one of the most important and perplexing problems of life, namely, how to "sell their services," thereby aiming to bring a co-ordinated training of theory and practice to a logical conclusion.

*½ semester hour credit*

### C 12 *Business Conference*

This course is the sequel to C 11 and consists of the practical application of the techniques of job-getting which have been analyzed and discussed in that course. It is conducted on a conference rather than on a class basis, the major portion of the time being devoted to the planning and writing of letters to and securing interviews with prospective employers. It is intended that this course will culminate in the attainment by each student of his after-graduation job.

*½ semester hour credit*

## Economics

DEAN LAKE, PROFESSOR HAMILTON; MESSRS. TUTHILL and REGAN

### Ec 1 *Introduction to Economics*

In order to provide an adequate background for the study of economics this first course emphasizes the economic resources of our country and the part played by these resources in the development of our modern industrial society.

The course is more concerned with promoting the comprehension of basic concepts than with stressing encyclopedic knowledge of masses of details. In the latter part of the semester frequent use is made of motion pictures to illustrate the processes and peculiar economic characteristics of specific industries.

*3 semester hour credits*

### *Ec 2 Economic History of the U. S.*

This course is designed to complete the factual background which is needed for the most successful study of theoretical economics. The economic development of the United States is traced from the colonial period to the present with special emphasis upon the period since the Civil War. Stress is laid upon the importance of economic factors and changes in our history in the description of the development of manufacturing, agriculture, domestic and foreign commerce, finance and banking, transportation, and labor organizations. Consideration is given to European developments which have been closely related to those of the United States.

*3 semester hour credits*

### *Ec 3 Economic Principles*

A thorough grounding in the fundamental principles and laws of economics is the aim of this basic course. The main topics include: the nature and organization of production, the nature and importance of wants, the relation of money and prices, the process of exchange, and the nature of international trade.

*2 semester hour credits*

### *Ec 4 Economic Principles*

A continuation of Ec 3. A careful analysis is made of the determination of price under conditions of competition and monopoly, and of the distribution of wealth and income in the form of wages, economic rent, interest, and profits. The elements of insurance are discussed in connection with profits.

*2 semester hour credits*

### *Ec 5 Economic Problems*

In this course the application of economic principles to some of the major economic problems of modern society is emphasized. The problems studied include: consumption, protective tariffs and subsidies, labor problems such as unemployment and labor unions, and the business cycle.

*2 semester hour credits*

### *Ec 6 Economic Problems*

A continuation of Ec 5. Among the problems considered are the following: price stabilization, the agricultural problem, the relation of government to business including the control of monopolies and public utilities, insurance, public finance, and proposals for the remodeling and improving of the economic system.

*2 semester hour credits*

### *Ec 7 Money and Banking*

This course provides a detailed analysis of the functions of money and credit in our economic system. Consideration is given to the nature of money, monetary standards with special reference to the gold standard, the theory of bank credit, the structure of our banking system, and the organization of the American money market.

*2 semester hour credits*

### *Ec 8 Money and Banking*

A continuation of Ec 7. This course is devoted to such problems as the quantity theory of money, the control of money and credit by the central bank, the policies of the Federal Reserve Board, and the international aspects of the control of money and credit. Throughout the course especial attention is paid to current development in money and banking.

*2 semester hour credits*

### *Ec 11 Labor Problems*

An intensive study of the labor problems of modern industry constitutes the content of this course. Unemployment and other grievances of the worker, including industrial accident and disease, inadequate wages, long hours, undesirable working conditions, child and woman labor, etc., are carefully analyzed. Labor unions, representing the workers' effort to solve the above problems, receive extended attention with an appraisal of their policies and accomplishments. Employee representation, profit-sharing plans and similar devices of the employer to meet the same problems are also examined critically. Other topics of the course include the efforts of the state to prevent and settle industrial disputes; labor legislation; labor and politics; social insurance; and socialism and co-operation in connection with the solution of labor problems.

*Pre-requisite: Ec 3, Ec 4*

*2 semester hour credits*



### *Ec 12 Economic Systems*

This is an intensive analysis of alternative economic systems. Various criteria for evaluating the different systems are developed.

*Pre-requisite: Ec 5, Ec 6*

*2 semester hour credits*

### *Ec 13 Business Cycles*

After a study of the conditions which underlie cyclical fluctuations in prices, volume of trade, physical production, and employment, a careful analysis is made of the more significant theories of the business cycle. The possibilities of controlling such fluctuations and of initiating recovery receive extended attention. Throughout the course emphasis is placed upon the current phase of the business cycle and its peculiar problems.

*Pre-requisite: Ec 5, Ec 6*

*2 semester hour credits*

### *Ec 14 International Economic Relations*

A careful examination of the important principles of international trade and finance precedes a critical survey of the international commercial policies of modern nations, with special reference to the United States. Such broader problems as the international control of raw materials, exchange restrictions, international cartels and the economic activities of the League of Nations and other international organizations are considered.

*Pre-requisite: Ec 5, Ec 6*

*2 semester hour credits*

### *Ec 15 History of Economic Thought*

A critical review of the origin and development of economic thought from the ancient world to modern times is the aim of this course, since familiarity with the efforts of great economic thinkers in the past is essential for the thorough understanding of modern economic theory. After briefly noting the contributions of Plato and Aristotle, the early Christian fathers, and the writers of the Middle Ages, each of the main schools of economic thought is taken up in turn: the Mercantilists, the Physiocrats, the Classical School, the Socialists, the Historical School, the Austrian School, and Alfred Marshall.

*Pre-requisite: Ec 5, Ec 6*

*2 semester hour credits*

### *Ec 16 Advanced Economic Theory*

The course introduces the student to the more complex aspects of economic theory. Particular consideration is given to the major modern theoretical problems.

*Pre-requisite: Ec 15*

*2 semester hour credits*

### *Ec 17 Statistics*

This course is intended to give the student an understanding of statistical principles and methods and their practical application in the social sciences. A study is made of the nature, sources, collection and organization of statistical facts; the presentation of such facts in tabular or graphic form, the various averages, measures of dispersion, and the construction and use of index numbers.

*2 semester hour credits*

### *Ec 18 Statistics*

The analysis of time series occupies the major portion of this continuation of Ec 17 Statistics, and includes the methods of obtaining trends, seasonal indexes, and the measurement of cyclical variation. The application of correlation analysis in the field of social science is given extended attention.

*2 semester hour credits*

## *Education*

PROFESSORS ESTES and WHITE; MR. MORRIS

Note: In addition to the courses listed below, Ps 5 and Ps 6, Educational Psychology, may also be counted as courses in education.

### *Ed 1 History of Education*

Education is considered as the means by which nations have attempted to realize their social and spiritual ideals. This course traces the history of education from ancient times through the Greek and Roman periods, the Middle Ages, the Renaissance and Reformation, down to John Locke and the Enlightenment. The course is concerned with the development of points of view as well as with the details of organization and practice.

*2 semester hour credits*

### *Ed 2 History of Education*

Beginning with the emotional reaction against formalism in life as exemplified by Rousseau, this course takes up the immediate background of modern education and traces the development of national systems. The influence of such men as Pestalozzi, Herbart, Froebel, Spencer, Mann, Barnard, Dewey, and others is studied in detail. The course closes with a consideration of present tendencies in education.

*2 semester hour credits*

### *Ed 3 Educational Organization and Administration*

A study of the principles underlying the organization, administration, and supervision of public schools in the U. S. A. The course is illustrated with suitable problems taken from actual practice. It should be of special interest to students who contemplate teaching as a vocation.

*2 semester hour credits*

### *Ed 4 Educational Measurements*

The course concerns itself with current problems in the field of educational tests and measurements. Most of the lectures are given over to a discussion of the construction and use of new type objective tests, with particular reference to the field of secondary education. The relative merits of the essay and the objective examination are considered in connection with the problem of grades and grading systems. Enough elementary statistics are included to enable students to use intelligently the results of testing. Emphasis is placed upon the importance of an accurate interpretation of test data and upon the futility of indiscriminate testing.

*2 semester hour credits*

### *Ed 7 Comparative Education*

A discussion of the educational background and current theories and practices of England, France, and Germany. Emphasis is laid upon the bearing of European education on American practice. Much of the assigned reading is in current periodical literature, although a basic text is also used. Lectures, special reports, and class discussions comprise the media by which the course is conducted.

*2 semester hour credits*

### *Ed 9 Educational Sociology*

The course considers the relationship between education and sociology. Educational objectives are set up from the findings of sociological research and the traditional curriculum is examined in the light of these objectives with a view towards its reconstruction. A critical attitude is maintained toward philosophical implications which will inevitably arise in the course.

*2 semester hour credits*

### *Ed 10 Educational Philosophy*

A study of the relationship between the science of education and the philosophy of education is followed by a consideration of philosophies of education in the light of basic theses of the history of philosophy. Such topics as evolutionism, behaviorism, pragmatism, instrumentalism, and progressive education are viewed in the perspective of the history of philosophy.

*2 semester hour credits*

## *English*

DEAN MELVIN; PROFESSORS HOLMES and MARSTON;  
MESSRS. CLONEY, CHAPMAN, and NORVISH

### *E 1 English I*

A course in composition with especial emphasis on exposition. Principles of grammar and rhetoric are reviewed rapidly but thoroughly. Contemporary essays are studied both for their value as models and as enrichment of the student's background. Themes on subjects largely drawn from or related to the student's life and study are a weekly requirement.

*3 semester hour credits*

### *E 2 English I*

A continuation of E 1. Toward the end of the term a careful study is made of letter writing.

*3 semester hour credits*

### *E 3 English II*

This course combines advanced work in composition with studies in drama. Eight plays by American and European dramatists are read and analyzed. Class discussions aim to develop in the student an ability to appreciate literary values. In the assignment and correction of weekly themes, which form the basis of the work in composition, emphasis is laid on effective theme organization and precision in the expression of ideas.

*2 semester hour credits*

### *E 4 English II*

The novel is studied through an analysis of examples of the various types of contemporary fiction. Outside reading is an important part of the work of the course. Weekly theme writing is continued.

*2 semester hour credits*



### *E 7 Creative Writing*

For students interested in imaginative writing. Original papers by the students will be discussed in class and in weekly conference with the instructor. The principles underlying creative writing will be carefully studied.

*2 semester hour credits*

### *E 8 Creative Writing*

Continued practice in creative writing supplemented by an analysis of the work appearing in the better magazines. The shorter forms will be emphasized.

*Pre-requisite: E 7*

*2 semester hour credits*

### *E 9 Journalism I*

The newspaper technique, with practice in re-writing. The general tasks of an "inside" man and the functions of the editorial department.

*2 semester hour credits*

### *E 10 Journalism I*

The problems of reporting and newswriting, with written assignments in all types of spot news reporting.

*Pre-requisite: E 9*

*2 semester hour credits*

### *E 11 Journalism II*

Editing the news. The writing of editorials, feature articles, and columns.

*2 semester hour credits*

### *E 12 Journalism II*

A general practice course in newspaper writing, the covering of special assignments, and editorial problems.

*Pre-requisite: E 11*

*2 semester hour credits*

### *E 13 Effective Speaking*

This course offers practical training in the preparation and presentation of the various types of speeches. The instruction will be planned to eliminate defects of voice, posture, etc., and to develop in the student an ability to speak easily, naturally, and forcefully.

*1 semester hour credit*

### *E 14 Effective Speaking*

Continued practice in oral presentation, impromptu and extempore speaking, organization of material, consideration of the audience, etc., form the basis of the course.

*1 semester hour credit*

### *E 15 Survey of English Literature*

A survey of English literature to 1800. After a brief study of the social and political background of each literary period, the writing of the period is considered, and the more important writers are studied and read in detail. The purpose of the course is to give the student an appreciation of English literature as a whole, and an intimate knowledge of its major figures.

*2 semester hour credits*

### *E 16 Survey of English Literature*

A survey of English literature from 1800 to the present century. The outstanding writers are read, studied, and related to the general background of nineteenth-century England. The purpose of the course is to give the student an understanding of the writers who contributed most to the formation and development of modern literature in England.

*2 semester hour credits*

### *E 17 English Drama Before Shakespeare*

A study of the origins and of the growth of English drama from its beginning to its culmination in the work of Shakespeare. A discussion of the morality plays will be followed by a careful consideration of the influence of Plautus, Terence, and Seneca on the dramatists of the age. Plays by Lyly, Peele, Greene, Kyd, and Marlowe will be read as a background for Shakespearean drama.

*2 semester hour credits*

### *E 18 Chaucer*

An introduction to the language and literature of Chaucer and his contemporaries, with special attention to the "Canterbury Tales." The course includes a consideration of Chaucer's influence on the growth of the language, an examination of the "roman de tiroir" form, and a survey of the chief types of European popular narrative which the "Canterbury Tales" represents.

*2 semester hour credits*

### *E 19 Shakespeare*

An introduction to the work of Shakespeare. The Elizabethan period, Shakespeare's London, the Elizabethan stage and audience, and the plays of Shakespeare's contemporaries will be discussed in lectures. Five plays will be studied.

*2 semester hour credits*

### *E 20 Shakespeare*

Lectures will be given on Shakespearean grammar, the text of Shakespeare, editors' problems, etc. Four plays will be carefully analyzed.

*2 semester hour credits*

### *E 21 Nineteenth Century Poetry I*

Background forces which shaped the Romantic period will be carefully studied; the influence of German idealists, of the French Revolution, and of the natural reaction from the classicism of Pope and Johnson will be analyzed and evaluated. Poetry of Wordsworth, Coleridge, Byron, Keats, and Shelley will be studied critically.

*2 semester hour credits*

### *E 22 Nineteenth Century Poetry II*

A study of the poetry of the Victorian era with emphasis on the writings of Browning and Tennyson. The influence of the age on its poets will be carefully considered.

*2 semester hour credits*

### *E 23 Eighteenth Century Prose*

An examination of the important prose of the century, with particular emphasis on Defoe, Swift, Addison, Steele, Burke, and Paine. Although the political strife of the period as reflected by these writers will be stressed, the strictly literary essay will not be neglected.

*2 semester hour credits*

### *E 24 Nineteenth Century Prose*

The philosophy of laissez-faire, the idea of evolution, the growth of imperialism, the Oxford Movement, and the Fabian essays in socialism will be analyzed in this course. Carlyle, Darwin, Ruskin, Morris, and Shaw will be the principal writers studied. The literary and non-controversial essay as exemplified by Coleridge, DeQuincey, and Hazlitt will be read and discussed.

*2 semester hour credits*

### *E 25 American Literature to 1860*

A survey of American literature from colonial times to the triumph of the transcendental movement in New England. The work of Bryant, Irving, Cooper, Poe, Emerson, Thoreau, Lowell, Holmes, Longfellow, and Melville will be emphasized.

*2 semester hour credits*

### *E 26 American Literature After 1860*

Continuing E 25, the course will consider the rise of realism after the Civil War, the development of American humor, the appearance of local color writers, and modern trends since 1900.

*2 semester hour credits*

### *E 27 History of the English Novel*

This survey will trace the development of the novel from the 18th century to the beginning of the Victorian era. It will deal with the maturing of the novel form in the hands of Defoe, Richardson, Fielding, and Smollett; the "Gothic romances" of Walpole and Lewis; and the novel of manners as seen in Jane Austen.

*2 semester hour credits*

### *E 28 History of the English Novel*

This course will deal with the work of the Great Victorians, particularly Thackeray, Dickens, Eliot, Conrad, and Hardy. A few contemporary novels will be discussed. The student will be expected to read widely in the field.

*2 semester hour credits*

### *E 29 Great European Writers*

An introduction to the classics of Ancient and Medieval literature. The purpose of the course is to acquaint the student broadly with our literary heritage and to furnish him background for later studies in literature.

*2 semester hour credits*

### *E 30 Great European Writers*

A survey of the literature of Europe from the Renaissance to the beginning of the twentieth century.

*2 semester hour credits*



### *E 31 Modern Literature 1895-1915*

Beginning with a study of late nineteenth-century literature in England and America, the course considers the principal literary developments of the period 1895 to 1915. New forms and methods in poetry, the novel, the short story, and the play are studied; illustrated by the work of literary groups and movements, and by such major writers as Walt Whitman and Henry James.

*2 semester hour credits*

### *E 32 Post-war Literature*

A survey of contemporary literature in England and America. Outstanding writers are studied in detail. Some of the subjects discussed are recent changes in form and technique; literary experiments; the effect on literature of the World War, and of recent social changes. During the course each student writes a paper and presents a class report on a contemporary author.

*2 semester hour credits*

## *French*

PROFESSOR BARNASON; MESSRS. TENNEY and COOPERSTEIN

### *F 1 Introductory French*

A course for beginners in the reading, writing, and speaking of French. Not open to freshmen.

*3 semester hour credits*

### *F 2 Elementary French*

A continuation of the beginners' course with more emphasis on reading.

*3 semester hour credits*

### *F 3 Intermediate French*

A course for those who have had at least two years of pre-college French. The work consists of a thorough review of grammar through composition and conversation in French.

*3 semester hour credits*

### *F 4 Intermediate French*

This course continues the review of French grammar with more time devoted to the reading of modern authors.

*3 semester hour credits*

### F 5 *Advanced French*

This course is intended to expand the student's literary and scientific vocabulary and to serve as an introduction to the study of French literature. The reading will be chiefly from writers of the 18th century.

*Pre-requisite: F 4*

*2 semester hour credits*

### F 6 *Advanced French*

This course continues the work of F 5. The reading will be chiefly from 19th century writers.

*2 semester hour credits*

### F 7 *Readings in French Literature*

This course is designed to make the student familiar with the outstanding works of French writers and to furnish him with material for the comparison of French literature with the literature of other nations. The readings will cover the earlier period of French literature to 1700.

*Pre-requisite: F 6*

*2 semester hour credits*

### F 8 *Readings in French Literature*

This course continues the work of F 7. The readings will cover the period from 1700 to the present day.

*2 semester hour credits*

## Geology

PROFESSOR PUGSLEY

### Gy 1 *General Geology*

A study of earth movements and various terrestrial applications of solar energy. Lectures on fundamental general facts as to origin and movements of the earth, weathering, work of winds, underground and surface waters, glaciers and the glacial period, lakes and swamps, and vulcanism.

*2 semester hour credits*

### Gy 2 *General Geology*

Course Gy 1 is continued with such topics as mountain formation, oceans, oceanic life, atmosphere touching upon meteorology. A considerable portion of time is given to the study of igneous, sedimentary and metamorphic rocks, supplemented by laboratory and field work.

*2 semester hour credits*

### Gy 5 *Historical Geology*

A review of the beginning of the earth, its development and historical significance of rock characters. This is followed by a study of the pre-Cambrian Paleozoic and the early Paleozoic Subera.

*2 semester hour credits*

### Gy 6 *Historical Geology*

Continuation of the first semester taking in the late Paleozoic Subera, the Mesozoic and Cenozoic periods, and continuing through the geologic history of man.

*2 semester hour credits*

## German

PROFESSOR BARNASON; MESSRS. TENNEY and COOPERSTEIN

### G 1 *Introductory German*

A course for beginners in the reading, writing, and speaking of German.

*3 semester hour credits*

### G 2 *Elementary German*

A continuation of the beginners' course with more emphasis on reading.

*3 semester hour credits*

### G 3 *Intermediate German*

A course for those who have had some previous study of German. Study is carried on through reading, composition, and conversation in German.

*3 semester hour credits*

### G 4 *Intermediate German*

This course continues the review of German grammar with more time devoted to the reading of modern authors.

*3 semester hour credits*

### G 5 *Advanced German*

This course is intended to expand the student's literary and scientific vocabulary and to serve as an introduction to the study of German literature. The reading will be chiefly from writers of the classical period.

*Pre-requisite: G 4*

*2 semester hour credits*

### G 6 *Advanced German*

This course continues the work of G 5. The reading will be chiefly from writers of the 19th century.

*2 semester hour credits*

### G 7 *Readings in German Literature*

This course is designed to make the student familiar with the outstanding works of German writers and to furnish him with material for the comparison of German literature with the literature of other nations. The readings will cover the earlier period of German literature to 1800.

*Pre-requisite: G 6*

*2 semester hour credits*

### G 8 *Readings in German Literature*

This course continues the work of G 7. The readings will cover the period from 1800 to the present day.

*2 semester hour credits*

## Government

PROFESSORS D'ALESSANDRO and BRUCE; MESSRS. DEMETER and KEITH

### Gv 1 *American Government and Politics*

The study of our National Government with respect to its organization and function; its powers and limitations under the Constitution; its legislative, administrative and judicial machinery under the party system of government and bureaucracy.

*2 semester hour credits*

### Gv 2 *American Government and Politics*

A more careful study of the relationships of our federal, state and municipal governments, including an analysis and comparison of the various state governments and types of municipal government with respect to state and local agencies for carrying out the executive, legislative and judicial functions of government in a democratic country.

*2 semester hour credits*

### Gv 3 *Municipal Government*

This course is a study of the machinery of city government in the United States, treating specifically the growth of the American city, the duties and powers of the municipal corporation, the organs of municipal government and their interrelations, and an analysis of the frame-work and functionalizing mechanism of municipal organization.

*2 semester hour credits*



### *Gv 4 Comparative Government*

A course which presents the processes and institutions by which government is being attained in the leading nations of the world. The course is designed to give breadth of view and develop a sympathetic appreciation of what people of other races and nationalities are doing to meet the demands of modern society.

*2 semester hour credits*

### *Gv 5 American Constitutional Law*

Following a careful study of the influences affecting the framing of the Constitution, attention is turned to the leading constitutional principles of the American government as developed through judicial interpretation.

*2 semester hour credits*

### *Gv 6 American Constitutional Law*

A continuation of Gv 5. Primary emphasis is placed upon the relation of constitutional law to present day problems with particular reference to such items as "due process of law" and "inter-state commerce".

*2 semester hour credits*

### *Gv 7 Origins of Political Theory*

A survey of political philosophy from Plato and Aristotle to Bentham. The nature, origin, forms, and ends of the state and government are covered.

*2 semester hour credits*

### *Gv 8 Modern Political Theory*

A critical study is made of the major developments in political theory since Bentham with special reference to the influence of these developments upon American politics and political institutions. Attention is paid to the modern conflict between the democratic and the totalitarian conceptions of the state.

*2 semester hour credits*

## *Graphic Arts*

PROFESSOR MESERVE

### *GA 5 Principles of Composition in Art*

A comprehensive course in the appreciation of visual art, emphasizing the use and arrangement of line, mass, and color in composition. By means of textbook, pictures, lantern slides, and museum trips, the class will study actual works of art to discover their patterns and structure.

This course is recommended but not required as a preparation for the courses in History of Art. It is also suggested for students who want merely to increase their enjoyment of art by studying the aims and resources of the artist.

*3 semester hour credits*

### GA 6 *Freehand Sketching*

A course in freehand drawing to train the student to see and record shapes rapidly and in proper proportion, both in outline and in light and shade. This course includes an introduction to lettering; orthographic, oblique and perspective projection; figures in action; and shades and shadows.

Open only to students who by interview with the instructor have given evidence of some facility in elementary sketching.

*3 semester hour credits*

### GA 7 *History of Art*

A study of the characteristics and development of the visual arts; architecture, sculpture, and painting from earliest times through the Roman period. Lectures are supplemented by lantern slides and the work of the course includes some study at nearby museums.

*2 semester hour credits*

### GA 8 *History of Art*

An examination of the characteristics and development of the visual arts; architecture, sculpture, and painting from early Christian times through the Renaissance period. Lectures are supplemented by lantern slides and the work of the course includes some study at nearby museums. This course is a continuation of GA 7, but does not presuppose it.

*2 semester hour credits*

### GA 9 *Art in Industry*

This course is directed toward a study and development of the applications of design theory to modern manufacturing. Through an analysis of typical problems the class will examine the background of industrial design and discover how the principles of art may be used to improve the form of such products as containers, tools, household machinery, furniture, and motor cars.

*2 semester hour credits*

## GA 10 *Art in Merchandising*

A course in the application of the laws of composition and design to the problems of aesthetic appeal in advertising media. Lettering, typography, and design problems relating to advertising panels, placards, pamphlets, bookcovers, etc. will be discussed.

*2 semester hour credits*

# History

PROFESSOR POTTER, DR. BENEZET, and ASSISTANTS

## H 1 *History of Civilization*

This course is primarily a background course. It consists of a brief outline of the origin of man, paleolithic and neolithic men and cultures, the transition to copper and bronze cultures, the development of writing and various alphabets, and the early civilizations of Asia, Egypt, Greece and Rome.

*3 semester hour credits*

## H 2 *History of Civilization*

This course is a continuation of H 1 with an account of the later history of Rome, medieval learning and literature, the Crusades, religious change in Europe, and national cultures and science in the 16th and 17th centuries.

*3 semester hour credits*

## H 5 *Europe, 1789-1870*

This course aims at describing and interpreting the development of European states from the French Revolution to 1870. Major topics include the Metternich system, the emergence of French Republicanism, and the unification of Italy and Germany. Non-political factors receive much attention throughout the course.

*2 semester hour credits*

## H 6 *Europe, 1870-1938*

The international relationships which precipitated the tragedy of 1914 are considered. The rise of militarism and nationalism, secret diplomacy, propaganda and the press, the "incidents" which led to the World War, the conduct of the war, the peace treaties, and the rise of socialism and fascism are discussed in this course.

*2 semester hour credits*

### *H 7 England to 1688*

This course surveys the political, social, religious, and economic development of England to the Revolution of 1688. Political history receives the major emphasis, but stress is placed upon the rise of the English institutions which represented England's outstanding contribution to civilization.

*2 semester hour credits*

### *H 8 England Since 1688*

A continuation of H 7. A study is made of the constitutional form of government and democracy, the expansion of the Empire, the evolution of the British Commonwealth of Nations, and the position and influence of the Empire in world affairs.

*2 semester hour credits*

### *H 9 The United States to 1865*

This course is an interpretation of the events which shaped the American nation to the Civil War. Social customs, economic influences, racial contributions, and humanitarian movements are not neglected even though the political history is stressed.

*2 semester hour credits*

### *H 10 The United States Since 1865*

Major attention is given to the social, economic, and political foundations of recent history in this survey of the transition of America from an agricultural to an urban industrialized society since the Civil War. Consideration is given to the problems arising with the emergence of America as a world power.

*2 semester hour credits*

### *H 11 Latin American History*

This course deals with the European background of Spanish and Portuguese colonization in the New World, the exploits of the conquistadores, the Indian civilizations, colonial institutions, and the forces which gave rise to the revolutions in the early 19th century.

*2 semester hour credits*

### *H 12 Latin American History*

This course continues H 11, and describes the Wars of Independence and the rise of the republics. A study is made of the international relations of the Latin American countries, the Monroe Doctrine, and the Pan-American conferences.

*2 semester hour credits*



## Mathematics

PROFESSORS SPEAR and HASKINS; DR. LACOUNT; MESSRS. SEWELL,  
DEAN, COMBELLACK, MINZNER, COOK, and WINGATE

### M 1 *College Algebra*

The study of algebra is scheduled to begin with the solution of the quadratic equation, simultaneous quadratics, and equations in quadratic form. However, a rapid but thorough review of the fundamentals of algebra precedes this. The solution of the quadratic is followed by a detailed study of the theory of exponents. Then follow radicals, series, variation, inequalities, and the elementary principles of the theory of equations. Considerable time is given to plotting and the use of graphs in the solution of equations. The elementary theory of complex numbers is also covered.

*3 semester hour credits*

### M 3 *Trigonometry*

This is a complete course in trigonometry and should enable the student to use all branches of elementary trigonometry in the solution of triangles as well as in the more advanced courses where the knowledge of trigonometry is essential. Some of the topics covered are the trigonometric ratios; inverse functions; goniometry; logarithms; circular measure; laws of sines, cosines, tangents, half angles; solution of oblique and right triangles; transformation and solution of trigonometric and logarithmic equations. Considerable practice in calculation of practical problems enables the student to apply his trigonometry to problems arising in practice at an early stage. Additional work, graphical and algebraic, is done with the complex number, introducing De-Moivre's theorem and the exponential form of the complex number.

*2 semester hour credits*

### M 4 *Analytic Geometry and Introduction to Calculus*

This being a basic course in preparation for any further study of mathematics, it requires a thorough knowledge of the fundamentals of algebra. The course covers cartesian and polar coordinates; graphs; the equations of simpler curves derived from their geometric properties; thorough study of straight lines, circles, and conic sections; intersections of curves; transformation of axes; plotting and solution of algebraic equations of higher order and of exponential, trigonometric, and logarithmic equations;

loci problems. The general equation of the second degree is thoroughly analyzed in the study of conic sections. Some time is devoted to curve fitting from empirical data.

Explicit and implicit functions, dependent and independent variables, some theory of limits, continuity and discontinuity are given special attention from both the algebraic and the geometric points of view. Some theorems on the infinitesimal are introduced, and a study is made of infinity and zero as limits. Relative rates of change, both average and instantaneous, and the meaning of the slope of a curve follow. The differential and the derivative as applied to algebraic functions with the geometric interpretation are then studied. Tangents to curves of the second degree follow here. Simple applications with interesting practical problems help to develop the interest here and lay a solid foundation for the study of the calculus. The introduction of the differential at the same time with the derivative helps considerably to bridge the large gap which usually exists when the student passes from the study of the elementary analytic geometry to the infinitesimal of calculus.

*5 semester hour credits*

### M 5 *Differential Calculus*

The differential is introduced at the outset of the course, together with the derivative; geometric and practical illustrations are given of both; and both are carried along throughout the course. The work consists of differentiation of algebraic, trigonometric exponential, and logarithmic functions, both explicit and implicit; slopes of curves; maxima and minima with applied problems; partial differentiation; parametric equations; derivatives of higher order; curvature; evolutes and involutes; points of inflection; related rates; velocities, acceleration; indeterminate forms; expansion of functions; series. Although the subject matter deals with considerable theory, constant sight is kept of the practical application of the theory. The geometric interpretation of every new subject is carefully defined, and problems are continually solved dealing in practical applications of the theory in geometry, physics, and mechanics.

*Pre-requisite: M 4*

*3 semester hour credits*

### M 6 *Integral Calculus*

This course, a continuation of Calculus M 5, deals with integration as the inverse of differentiation as well as the limit of summation. The topics covered are methods of integration; use of integral tables; definite integrals; double and triple integrals; areas in rectangular and polar co-ordinates; center of gravity; moment

of inertia; length of curves; volumes of solids; areas of surfaces of revolution; volumes by triple integration; practical problems in work, pressure, etc., depending on the differential and integral calculus for solution; solution of simpler differential equations.

*3 semester hour credits*

### M 7 *Differential Equations I*

The elementary theory of differential equations and the method of solution of certain ordinary differential equations are offered here as a general course in mathematics. Although this is principally a problem course in solving differential equations, properties of the equations and of their solutions are deduced, and applications in the various fields of scientific work are analyzed.

*Pre-requisite: M 6*

*3 semester hour credits*

### M 8 *Differential Equations II*

Special cases of first order equations are considered, and a fuller treatment of first order equations of higher degree leads to a consideration of envelopes, special loci, and particular curves. The general second order linear equation is studied, and the several well-known methods of attack are presented. Solution in series form of equations whose primitives are not made up of classified functions is studied. Elementary partial differential equations of the first and second orders, leading to a presentation of Fourier's Series, conclude the course.

*Pre-requisite: M 7*

*3 semester hour credits*

### M 9 *Higher Algebra*

Complex numbers and the elementary theory of vectors start this course. It continues on with the solution of equations of the third and fourth degree, Horner and Sturm theorems, the solution of higher degree equations with the use of graphs. Some invariant forms are studied. Then follow general systems of equations with the complete study of determinants, and some of the elements of matrices. A study is made of the theory of elimination, linear dependence, and linear transformations. If time permits, a study is made of probability and related subjects.

*Pre-requisite: M 1, M 3*

*3 semester hour credits*

### M 10 *Curve Analysis*

This course deals with the methods of approximation of roots; plotting; empirical equations; and alignment charts.

*Pre-requisite: M 5*

*3 semester hour credits*

### M 11 *Solid Analytic Geometry*

The study of analytic geometry is extended here into three dimensions, mostly with rectangular co-ordinates, although cylindrical and spherical co-ordinates and the transformation between the three systems are also introduced. The equations of the first and second degree are analyzed. A study is made of line segments and angles; planes, linear equations in three variables; normal forms; systems of planes and angles; surfaces in general; quadric surfaces. Some work is done on general curves, certain special curves, surfaces of revolution, locus problems, and homogeneous co-ordinates.

*Pre-requisite:* M 4

*3 semester hour credits*

### M 12 *Modern Geometry*

Complete analysis of geometry of circle and triangle; linear dependence; transformations; inversions; poles and polars; harmonic division and cross ratios; systems of co-ordinates.

*Pre-requisite:* M 4

*3 semester hour credits*

### M 13 *Spherical Trigonometry*

This is a complete course in the study of spherical trigonometry, solving right and isosceles spherical triangles; Napier's rules; laws of sines, cosines, half-angles, and half-side formulas; Napier's analogies. A detailed solution of oblique spherical triangles including areas follows. Considerable time is spent on the celestial sphere and the astronomical triangle and on navigation, calculation of latitude and longitude, bearing, and time.

*Pre-requisite:* M 3

*3 semester hour credits*

### M 14 *History of Mathematics*

In this course a survey is made of the development of various branches of mathematics, and attention is given to the lives of men who have made outstanding contributions to mathematical science.

*2 semester hour credits*

### M 15 *Advanced Calculus*

No student should choose this course unless he is thoroughly familiar with the contents of courses M 5 and M 6. The subjects covered are continuity, indeterminate forms, applications of partial differentiation, vectors and differentiation of vectors, the complex variable, differentiation and functions of the complex variable, differentiation of integrals, envelopes.

*Pre-requisite:* M 6

*3 semester hour credits*



### M 16 *Advanced Calculus*

This is a continuation of M 15. The course starts with work in differential equations, problems in damped vibration and the potential function. Other topics are the hyperbolic function; expansion in infinite series including Fourier series; integration of special forms with definite, multiple, and improper integrals; probability integral; Gamma function; Beta function; Bessel's function; line integrals and applications.

*Pre-requisite:* M 15

*3 semester hour credits*

### M 17 *Series*

Various types of series and their uses. Study of limits, infinite series, tests for various types of convergence; divergence; algebraic operations with series; integration and differentiation; applications and use of special series.

*Pre-requisite:* M 5, M 6

*3 semester hour credits*

### M 18 *Theory of Equations*

This course devotes itself more to the theory and analysis of equations and roots rather than to actual solutions. The properties of polynomials and continuity are studied. The complex number, algebraic and geometric form are both reviewed. The solutions of quadratic, cubic, and quartic equations are discussed and analyzed with various theorems on roots. Proof is given of the fundamental theorem; other theorems discussed are the remainder theorem, Horner's and Newton's methods, limits of roots, Rolle's theorem, Descarte's rule, Sturm's theorem, Budan's theorem and DeMoivre's theorem. Transformations are studied and an analysis is made of rational, irrational, complex, and multiple roots. Symmetric functions including the relation of roots and coefficients are also taken up. Some work is done with discriminants. The course closes with the theory of least squares and curve fitting.

*3 semester hour credits*

## *Philosophy*

PROFESSOR HAVICE and ASSISTANTS

### *Ph 1 Introduction to Philosophy*

This introductory course combines the historical and systematic approaches to the subject. The historical treatment includes a survey of the chief philosophers and the development of basic philosophical ideas. The systematic treatment presents the

several types of philosophy, such as realism, materialism, idealism, and pluralism. The place of philosophy is considered in its relation to ethics, religion, and natural sciences. The course both acquaints the student with facts about philosophy and trains him to think philosophically.

*2 semester hour credits*

### *Ph 2 Problems of Philosophy*

The chief systems of thought are applied to what may be termed the presistent problems of philosophy. The problems are to be found in the fields of epistemology, teleology, and metaphysics. The following topics suggest representative problems which will be studied; the relation between mind and body, the nature and extent of freedom of the will, the validity of knowledge, and the bearing which the more recent views in physics and psychology have upon related philosophical problems.

*2 semester hour credits*

### *Ph 3 Philosophy of Religion*

Fundamental questions of religious belief are examined in the light of philosophy. Modern religions are compared with respect to their views on the nature of the Deity, the meaning of life, and the relationship between man and God. Further topics for study include the question of the validity of mysticism and intuitive knowledge of religious truth, the immortality of the soul, the meaning of the supernatural, the presence of natural evil, and the relation of morality to religion.

Students may take Philosophy of Religion without having had any other course in this department, although there is an advantage in having had the Introduction to Philosophy.

*2 semester hour credits*

### *Ph 4 Logic*

Formal logic is subordinated in this course to the more practical consideration of the methods of critical and reflective thought. Common fallacies in logic are indicated, and the student is given frequent exercises in correct reasoning. Attention is given to the principles of induction, deduction, verification, syllogism, and assumption. To assist the student to think clearly and correctly is the essential purpose of this modified course in logic.

*2 semester hour credits*

## Physical Education

PROFESSORS PARSONS and TATTON; DR. KONTOFF;  
MESSRS. GALLAGHER, LAVEAGA, HULTGREN, and DUNN

### PE 2 Hygiene

One class hour a week is devoted to the study of information closely related to the Physical Training work and to personal and mental hygiene. For this class lecture, each student is assigned at least one hour of outside study based on the required textbook. The course includes enough of the fundamentals of physiology and anatomy to enable the student to understand such parts of the course as require some knowledge of these subjects.

*1 semester hour credit*

### PE 3-4 Physical Training

All first year students are required to take Physical Training. Health, strength, and vitality do not come by chance, but by constant attention to good habits of living.

The work in the course includes a formal calisthenic program, special exercise classes for the correction of postural defects, participation in the regular athletic program, including baseball, basketball, hockey, football, track, and many types of informal games. All members of the class are also required to learn to swim.

Students wishing to be excused from Physical Training because of physical defects are required to present a petition to the faculty supported by a physician's certificate.

### PE 5 Principles of Physical Education

The course considers the place of physical education in the educational program in the United States. The development of physical education programs based on the changes in society from primitive to modern times is discussed, careful attention being given to the needs of the individual, as well as to the needs of the group. Relationship between medical service and the physical education department is considered, and methods of co-ordination between these two important departments are investigated. The history of physical education, in so far as it affects the modern program, is included in the course. Factors such as economic, social and political influences, which have an important effect on the conduct of the program, are also considered. School health programs are discussed, with particular emphasis upon the

medical and physical examinations and tests and the procedures which follow. Diagnostic and remedial techniques, classroom hygiene, and principles of preventive and corrective exercise are discussed. The course also includes a consideration of the proper place occupied by interschool and intercollegiate athletics in the physical education program.

Required of all students electing Physical Education as a minor field.

*2 semester hour credits*

### *PE 6 Play and Recreation*

The purpose of this course is to prepare students for leadership of leisure time activities. It considers the biological and sociological aspects of play and its increasing importance in modern life. From a practical point of view the course deals with the problems faced by the director of leisure time activities in the community, in the school, or on the playground. The course should be of special interest to students who contemplate entering social work or teaching.

*2 semester hour credits*

### *PE 7 History of Physical Education*

To provide a valuable background for students in this field, this course traces the whole history of physical education from the days of the Greeks and the Romans up to the present. Attention is given to a number of special systems of training which have been developed in Europe.

The course is required of all students electing Physical Education as a minor field.

*2 semester hour credits*

### *PE 8 Administration of Physical Education*

This course is designed to acquaint the student in the field of physical education with many of the administrative problems which are likely to arise in connection with his work. The subject matter includes a consideration of the objectives of the physical education program, personnel required, and various allied subjects such as gymnasias, athletic fields, and the construction and maintenance of these units. The conduct of the athletic program including requirements for equipment, arrangements of schedules, coaching, meets, etc., is also included. Required of all students electing Physical Education as a minor field.

*2 semester hour credits*



### *PE 9 Football*

This course is designed to furnish the student interested in football coaching with a thorough knowledge of the sport. Careful consideration is given to the fundamentals in discussing the plays of each position in the line and backfield. Various well-known offensive and defensive systems are discussed for the purpose of considering their general merits, as well as adaptations to particular situations. Training and conditioning, rules and interpretation, and officiating are given proper attention.

*2 semester hour credits*

### *PE 10 Floor and Apparatus Work*

The student is given actual practice in the use of the various types of equipment found in the gymnasium. This work, together with actual practice in floor work and the use of hand equipment such as dumb-bells, weights, etc., places the student in a position to understand and direct classes in the gymnasium. Emphasis is given to the importance of stimulating leadership in gymnasium activities.

*2 semester hour credits*

### *PE 11 Track and Field Events*

The course considers the care and training of track athletes. Practice schedules, selection of material, conduct of meets, etc., are discussed. The viewpoint from which the topics are treated is that of the student of coaching technique. In connection with this course, action pictures taken from actual performances by world champions, together with moving pictures, are of great value in demonstrating the style and technique of track and field events.

*2 semester hour credits*

### *PE 12 Basketball and Baseball*

Various systems in use throughout the country are compared and contrasted. Team play, offense, defense, signal systems, training and conditioning, rules, and officiating are among the topics studied. The student in this course should acquire a thorough knowledge of all phases of the sports.

*2 semester hour credits*

# Physics

PROFESSORS MUCKENHOUP, WELCH, COOLIDGE, and, JOHNSON;  
MESSRS. HILLI, BELYEA, and COOK

## *P 1-A Survey of the Physical Sciences*

The purpose of the course is to give a definite conception of the physical world to those students who ordinarily would not elect a science course but who need to know something about the contributions and the place of the physical sciences in contemporary civilization. This course begins with a study of the universe and solar system. Consideration is given to the principles of distance, mass and weight, and the simple dynamics of bodies. The earth is studied from the viewpoint of its geological, meteorological, and chemical aspects, these main fields introducing a non-mathematical discussion of magnetism, heat, and electricity.

*4 semester hour credits*

## *P 2-A Survey of the Physical Sciences*

In this course, which continues P 1-A, the phenomena of light are taken up. Following this, consideration is given to spectroscopy and matter structure, the periodic table, acids, bases, salts, and organic compounds. The course concludes with a discussion of certain aspects of physics which are of practical importance in the household, such as heating, lighting, refrigeration, and electrical appliances.

*4 semester hour credits*

## *P 1 Physics I*

A course in the study of the fundamental principles of the mechanics of physics. Some of the topics covered are simple harmonic motion, uniformly accelerated motion, friction, work, energy, power, fluid pressure, angular velocity, centripetal force, equilibrium under the action of a series of parallel forces, and equilibrium under the action of concurrent forces.

*3 semester hour credits*

## *P 2 Physics I*

This is a thorough course in magnetism and electricity, covering all the details within the scope of standard college texts on these subjects. All lectures are illustrated by means of lantern slides, motion pictures, and special apparatus.

*3 semester hour credits*

### P 3 *Physics II*

A course in the study of wave motion, sound, and light. Molecular mechanics and other fundamental principles of physics are stressed at the beginning.

*Pre-requisite:* M 1, M 3, P 2

*2 semester hour credits*

### P 4 *Physics II*

The topics studied are thermometry, expansion of solids, liquids and gases, calorimetry, change of state including latent heat of fusion and vaporization (sublimation), triple point diagram, conduction and radiation, and the mechanical equivalent of heat.

*2 semester hour credits*

### P 5 *Physics Laboratory*

This course consists of experiments in mechanics, light, electricity, and magnetism performed by each student supplementing the lecture and classroom work of courses P 1, P 2, and P 3. The experiments on mechanics include: the use of the vernier, micrometers and spherometer, the calculation of true weights, the funicular polygon, gyroscopic motion, simple harmonic motion and the determination of areas by means of the planimeter. Other experiments in this course include plotting the magnetic field about a bar magnet and the determination of the pole strength and field strength of the magnet, the position of images in a combination of lenses and one experiment on electrostatics.

*1 semester hour credit*

### P 6 *Physics Laboratory*

A continuation of the experiments started in P 5 including experiments on sound and heat. Some of the experiments of this course are: the modulus of elasticity, the determination of the velocity of sound, the coefficient of cubical expansion of mercury, the air thermometer, the determination of the mechanical equivalent of heat, the study of the maximum and minimum thermometers, and the use of the spectroscope in the study of the bright line and solar spectra. The experiments of this course supplement the class work of courses P 1, P 2, P 3, and P 4.

*1 semester hour credit*

### P 9 *Advanced Physics*

A study of atomic and molecular structure in the light of modern information. Electron theory is used extensively, an introduction is made to quantum theory, and sufficient of the concepts of relativity is advanced to be of use in the necessary developments.

*Pre-requisite:* P 4, M 8

*3 semester hour credits*

### *P 10 Advanced Physics*

The subject matter of P 9 is used and enlarged to permit the study of wave mechanics, x-rays, radioactivity, and the structure of the spectrum.

*Pre-requisite: P 9*

*3 semester hour credits*

### *P 11 Advanced Physics Laboratory*

This is a laboratory course in light. The problems studied are photometry, dispersion, interference, polarization, and spectroscopy.

*Pre-requisite: P 4, P 6, or P 8*

*2 semester hour credits*

### *P 12 Advanced Physics Laboratory*

This course is based on corpuscular electricity. Experiments are performed on vacuum tubes, determination of the electronic charge, cathode ray oscillography, and various discharge tubes.

*Pre-requisite: P 4, P 6, or P 8*

*2 semester hour credits*

### *P 13 Acoustics*

A complete mathematical study of the modes of vibration of strings, pipes, membranes; and a consideration of vibrating systems in general.

*Pre-requisite: P 4, M 6*

*2 semester hour credits*

### *P 14 Acoustics*

A course in the application of the principles of P 13 to the problems of speech, audition, sound, filters, musical instruments, and the acoustics of auditoriums.

*Pre-requisite: P 13*

*2 semester hour credits*

### *ME 20 Applied Mechanics (Statics)*

The subjects treated are collinear, parallel, concurrent, and non-concurrent force systems in a plane and in space; the determination of the resultant of such systems by both algebraic and graphical means, special emphasis being placed on the funicular polygon method for coplanar force systems; the forces required to produce equilibrium in such systems; first moments; and problems involving static friction, such as the inclined plane and the wedge.

*Pre-requisite: P 3*

*3 semester hour credits*



### ME 21 *Applied Mechanics (Kinetics)*

The subjects treated are continuation of first moments as applied to varying intensity of force and to the determination of center of gravities of areas and solids; second moments and the application to the determination of moment of inertia of plane and solid figures, radius of gyration, polar moment of inertia, product of inertia, principal axes, uniform motion, uniformly accelerated motion, variable accelerated motion, harmonic motion, simple pendulum, rotation, work, energy, momentum and impact.

*3 semester hour credits*

### ME 30 *Thermodynamics*

In this introductory course in the fundamentals of thermodynamics the following subjects are discussed: general theory of heat and matter; first and second laws of thermodynamics; equations of state; fundamental equations of thermodynamics; laws of perfect gases; properties of vapors including development and use of tables and charts; thermodynamic processes of gases, and saturated and superheated vapors; and the general equations for the flow of fluids.

*3 semester hour credits*

### EL 6 *Electrical Measurements*

The course comprises a brief study of measurements in general, and precision measure as applied to electrical measurements in particular. Resistance devices, galvanometers, ammeters, and voltmeters are next discussed, the treatment of other instruments being taken up later in connection with their use. This is followed by a detailed discussion of the methods of measuring various electrical quantities (which involves the use of visual indicating devices) resistance, resistivity, conductance; D.C. electromotive force, current, power, and energy. Some consideration is given to the principles and operation of vacuum tubes. Appropriate laboratory experiments are included.

*Pre-requisite: P 2*

*2½ semester hour credits*

### EL 21 *Electrophysics*

The first part of this course is concerned with Faraday's Rule and the extended Ampere Rule, divergence of electrical vectors, Poisson's equation, and Maxwell's field equations and wave equations. Study is then made of molecular activity, and various properties of and measurements on electrons.

*Pre-requisite: M 7*

*1 semester hour credit*

## EL 22 *Electrophysics*

Continuing EL 21 the topics considered are photo-electricity, X-rays, atomic structure and the spectrum, vacuum tubes, radio-activity, and the modern physics of matter and waves.

2 semester hour credits

# Psychology

PROFESSOR ESTES and ASSISTANTS

## Ps 1-A *Orientation Problems*

This course is designed to make the entering student explicitly aware of those facts, principles, and techniques which are significantly related to the maintenance of his intellectual efficiency and mental health in the college environment. Lectures, assigned reading, and individual conferences.

## Ps 1 *Introduction to Differential Psychology*

An elementary survey of the psychology of individual differences including personality differences, together with a presentation of some of the practical applications of the findings of differential psychology.

2 semester hour credits

## Ps 2 *General Psychology*

An introduction to general experimental psychology. The topics considered include learning, thought, memory, perception, and sensation.

2 semester hour credits

## \*Ps 5 *Educational Psychology*

Considers the applications of psychological facts and principles to educational problems and practices.

*Pre-requisite: Ps 1 and 2*

2 semester hour credits

## \*Ps 6 *Educational Psychology*

Continuation of Ps 5.

*Pre-requisite: Ps 5*

2 semester hour credits

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\*May be counted for credit in either Psychology or Education.

### *Ps 7 Social Psychology of Everyday Life*

A course devoted to the psychological examination of some of the phenomena observable in everyday social life. These include customs, crazes, fashions, rumor, propaganda, crowds, leadership, competition, and co-operation.

*2 semester hour credits*

### *Ps 8 Social Psychology, Theory, and Methods*

A survey of the field of social psychological theory and an examination of the experimental techniques utilized in this field of psychology. Special emphasis is placed upon attitudes and their measurement.

*2 semester hour credits*

### *Ps 9 Psychology of Personality*

Presents a survey of historical and contemporary theories of the nature of personality. The problems of the generality of traits, the consistency of expression, and the relation of cultural factors to personality, growth, and integration will be discussed.

*Pre-requisite: Ps 1 and 2*

*2 semester hour credits*

### *Ps 10 Abnormal Psychology*

An introduction to the field of psychopathology. The psychology of the neuroses and the minor disturbances of everyday life are emphasized. Interpretation of clinical findings in the light of some contemporary schools of psychology is included.

*2 semester hour credits*

## *Sociology*

PROFESSOR HAVICE; DR. DUDDY; MR. MORRIS and ASSISTANTS

### *S 1-A Introduction to Social Science*

The aim of this course is to give the student a broad foundation for work in the social sciences. The historical development of the forces, influences, movements, and conditions which form the background of our present social problems is studied.

*4 semester hour credits*

### *S 2-A Introduction to Social Science*

The course continues S 1-A and points out the increasing complexity and interrelations of social movements. A consideration of a few contemporary social problems in the light of what has been studied concludes the course.

*4 semester hour credits*

### *S 1 Introduction to Sociology*

In presenting a survey of the origins and sources of human society, this study provides orientation for the courses in principles and problems which follow. The several theories of organic evolution are discussed. The antiquity of man and basic anthropological data are considered. The racial and ethnic groupings of man are then studied in the light of biological, geographical, and cultural factors.

*2 semester hour credits*

### *S 2 Principles of Sociology*

Facts and principles basic to a general knowledge of the field of sociology are presented. The origins, forms, and forces of human associations are discussed. Consideration is given the several leading schools of sociological thought. The course is designed to meet the needs of the student who desires only an elementary survey of the subject, as well as the student who plans to take advanced courses in social science.

*2 semester hour credits*

### *S 3 Social Problems*

Attention is given the nature, complex causation, and inter-relatedness of social problems in general. Cultural change with its attendant lags, as well as other social forces and conflicts, are studied. While sociological theory is occasionally introduced to clarify the problem at hand, the course is essentially practical in character. Such problems as poverty and unemployment, race antagonisms, population pressures, and the broken home are considered. Optional field trips to various institutions give concreteness to the problems studied.

*2 semester hour credits*

### *S 4 Social Pathology*

Similar to the course in Social Problems in background and approach, this study deals with the maladjustments and ills of human society. Emphasis is given those pathological conditions which exist in relations between the individual and the group. Typical subjects presented include mental defectiveness and disease, alcoholism and drug addiction, suicide, delinquency and crime, and pathologies of domestic relations. The field trips arranged for this course add to the practical knowledge of the social ills which are studied.

*2 semester hour credits*



### S 5 *Criminology*

Delinquency and crime are defined, classified, and their causal factors indicated. The various theories as to what makes criminals are dealt with, and a brief history of crime is sketched. Legal and economic aspects of crime are summarized, but the study is mainly sociological. Prevention and correction of criminal behavior are stressed. Local institutions are visited.

*2 semester hour credits*

### S 6 *Penology*

Closely related to the course in Criminology, this subject begins with an historical treatment of the punishment of criminals. Time is devoted chiefly to an understanding of modern methods and problems of dealing with offenders. Field trips are taken to criminal courts and penal institutions.

*2 semester hour credits*

### S 7 *Principles of Social Ethics*

To understand more clearly the meaning of morality in social relations is the aim of this study. Right and wrong conduct is analyzed in the light of the highest values for human society. Moral laws are discussed, and the various systems of ethics are evaluated. Scientific attitudes are encouraged in order that one's moral judgments be compatible with one's best reflective thought.

*2 semester hour credits*

### S 8 *The Family*

The historical development of the family is first traced, after which the course focuses upon the modern family. The monogamic family is contrasted with other types, and such unconventional forms as companionate and trial marriages are evaluated. Then follows an intensive study of family problems.

A constructive program is presented for strengthening the family as a basic unit in society.

*2 semester hour credits*

### S 9 *Problems in Social Ethics*

Problems arising from differences in moral standards found in the various social groups will be examined. The question of ethical relativism and determinism will be considered. A selected number of specific problems in social ethics will be discussed.

*2 semester hour credits*

### S 10 *Social Progress*

The historical development of the theory of progress, contemporary concepts of social progress, the agents of progress, and the phenomenon of regression are several of the subjects for study. The course is based on Hertzler's *Social Progress*, supplemented with lectures and collateral readings.

2 semester hour credits

### S 11 *Social Control*

The methods by which social forces are controlled is the fundamental question with which the course deals. External and internal types of control of the social organism are discussed. The use of violence, the power of public opinion, and the application of certain principles of social psychology are examined.

2 semester hour credits

### S 12 *Contemporary Sociological Trends*

A study is made of present-day basic social forces in an effort to determine whether they indicate a state of trendless flux or whether they move in a discernible direction. The course presupposes an elementary knowledge of the principles and problems of sociology. It observes contemporary social movements, correlates them, evaluates them, and endeavors to orient man in his society. Readings from current journals are assigned.

2 semester hour credits

### S 13 *Sociology of Religion*

Religious beliefs, practices, and institutions are examined and evaluated in relation to their effects upon society at large. The great religions of the world are compared in the light of their contributions to the well-being and progress of mankind. The social creeds of the several leading denominations in America are discussed with respect to their attitudes towards race, industry, war, and other social problems. The influences of organized religion upon politics and educational institutions are given attention.

2 semester hour credits

### S 14 *Social Institutions*

This course proceeds from the thesis that human society finds itself increasingly institutionalized, in occupation, government, religion, mutual aid, or play. It then studies the effect of the institutions upon the individual with the view of seeking to eliminate those elements which are undesirable and to encourage those which are desirable. The cycle of institutional development and the interpenetration of institutions are studied.

2 semester hour credits

### *S 15 Population Problems*

Population pressure, contrasts between urban and rural population, migration, and pertinent types of social mobility are studied in this course. After a brief survey of population problems in several areas of Europe and the Orient, attention is then given to a careful analysis of population conditions in the United States. The many factors are shown which intensify the problem in our country in spite of its wide area. What principles have superseded those of Malthus? What immigration policies are most sound for our country in the long run? What methods can be adopted which will relieve the population pressure in our great cities? Such questions as these will be discussed.

*2 semester hour credits*

### *S 16 Urban Sociology*

Upon studying the complex human society found in the various cities of the world, this course then turns to an analysis of the modern American city. Its types, social values, and pathological elements are discussed. Methods of city planning are considered. The belief on the part of some sociologists that democracy is doomed by its cities is examined in the light of typical problems of urban society.

*2 semester hour credits*

### *S 17 Vocational Study in Sociology*

Students who contemplate engaging in some type of social service work either as a profession or as an avocation are advised to take this course. Types of social and institutional work are presented. Opportunities available and qualifications desired are discussed. Personnel and administrative problems are studied. The needs for new or modified legislation concerning such social questions as sterilization, birth-control, and the like are investigated. Students are expected to reserve some time for visiting and possibly rendering services at local institutions and agencies.

*2 semester hour credits*

### *Theses*

A thesis in the College of Liberal Arts is considered to be an essay involving the statement, analysis, and solution of some problem in a special field. Its purpose is to demonstrate a satisfactory degree of initiative and power of original thought and work on the part of the candidate. A mere resume of existing knowledge in some subject is not acceptable. This, it is true, must usually be made, but in addition thereto the student must

show his ability to deal constructively with the data he has collected and his power to draw significant and reliable conclusions from his investigations. The completed thesis will be examined for acceptance or rejection from the technical viewpoint by the Professional Departments interested and then forwarded to the Secretary of the Day Division. Final approval of the thesis rests with the Dean. When it is accepted, the thesis becomes the property of the college and is not to be printed, published, nor in any other way made public except in such manner as the Professional Department and the Dean shall jointly approve.

Theses are not required of seniors in the College of Liberal Arts. To certain students who wish to do so, however, the privilege of writing a thesis may be granted by the Faculty Committee on Theses in accordance with the following regulations:

1. To be eligible to write a thesis a student must have attained a scholastic average of at least 2.0 or better through his middler year and the first half of his junior year.

2. Students who have met this minimum requirement may petition the Thesis Committee for the privilege of substituting a thesis for formal classroom work.

3. In his petition the student must state the subject which he proposes to investigate and give a brief statement of the purpose and scope of the proposed thesis.

4. Petitions for the privilege of writing theses must be submitted in writing to the head of the student's Professional Department not later than the middle of the second term of the junior year.

5. The Committee on Liberal Arts Theses comprises Professor Wilfred S. Lake, Chairman, Professor Charles W. Havice, and Professor Stanley G. Estes.



## NORTHEASTERN UNIVERSITY

## COLLEGE OF LIBERAL ARTS

*Courses of Instruction*

1939-1940

Course Number	Course	Semester Hours
<b>BIOLOGY</b>		
B 1	General Zoology.....	4
B 2	General Botany.....	4
B 3	Invertebrate Zoology.....	2½
B 4	Invertebrate Zoology.....	2½
B 5	Vertebrate Zoology.....	2½
B 6	Vertebrate Zoology.....	2½
B 7	General Physiology.....	2
B 8	Genetics and Eugenics.....	2
B 9	Animal Histology.....	2
B 10	Animal Histology.....	2
B 11	Vertebrate Embryology.....	2
B 12	Vertebrate Embryology.....	2
<b>CHEMISTRY</b>		
Ch 1	General Chemistry.....	4
Ch 2	Inorganic Chemistry.....	4
Ch 3	Inorganic Chemistry.....	4
Ch 4	Inorganic Chemistry.....	4
Ch 9	Qualitative Analysis.....	2
Ch 10	Qualitative Analysis.....	2
Ch 11	Qualitative Analysis Laboratory.....	1
Ch 12	Qualitative Analysis Laboratory.....	1
Ch 15	Quantitative Analysis.....	1
Ch 16	Quantitative Analysis.....	2
Ch 17	Quantitative Analysis Laboratory.....	2
Ch 18	Quantitative Analysis Laboratory.....	2
ChE 25	Industrial Chemistry.....	1
ChE 26	Industrial Chemistry.....	1
Ch 31	Organic Chemistry I.....	2
Ch 32	Organic Chemistry II.....	2
Ch 33	Organic Chemistry Laboratory I.....	1
Ch 34	Organic Chemistry Laboratory II.....	1
Ch 35	Industrial Organic Chemistry.....	2
Ch 36	Industrial Organic Chemistry.....	2
Ch 37	Organic Chemistry Laboratory III.....	1½
Ch 38	Organic Chemistry Laboratory IV.....	1½

*Courses of Instruction*

Course Number	Course	Semester Hours
<b>CHEMISTRY (Continued)</b>		
Ch 41	Library Research Problems.....	1
Ch 43	Physical Chemistry I.....	2
Ch 44	Physical Chemistry II.....	2
Ch 45	Physical Chemistry III.....	2
Ch 46	Physical Chemistry IV.....	2
Ch 47	History of Chemistry.....	1
Ch 48	History of Chemistry.....	1
<b>CO-ORDINATION</b>		
C 11	Business Conference.....	$\frac{1}{2}$
C 12	Business Conference.....	$\frac{1}{2}$
<b>ECONOMICS</b>		
Ec 1	Introduction to Economics.....	3
Ec 2	Economic History of the United States	3
Ec 3	Economic Principles.....	2
Ec 4	Economic Principles.....	2
Ec 5	Economic Problems.....	2
Ec 6	Economic Problems.....	2
Ec 7	Money and Banking.....	2
Ec 8	Money and Banking.....	2
Ec 11	Labor Problems.....	2
Ec 12	Economic Systems.....	2
Ec 13	Business Cycles.....	2
Ec 14	International Economic Relations.....	2
Ec 15	History of Economic Thought.....	2
Ec 16	Advanced Economic Theory.....	2
Ec 17	Statistics.....	2
Ec 18	Statistics.....	2
<b>EDUCATION</b>		
Ed 1	History of Education.....	2
Ed 2	History of Education.....	2
Ed 3	Educational Organization and Administration.....	2
Ed 4	Educational Measurements.....	2
Ed 7	Comparative Education.....	2
Ed 9	Educational Sociology.....	2
Ed 10	Educational Philosophy.....	2

*Courses of Instruction*

Course Number	Course	Semester Hours
<b>ENGLISH</b>		
E 1	English I.....	3
E 2	English I.....	3
E 3	English II.....	2
E 4	English II.....	2
E 7	Creative Writing.....	2
E 8	Creative Writing.....	2
E 9	Journalism I.....	2
E 10	Journalism I.....	2
E 11	Journalism II.....	2
E 12	Journalism II.....	2
E 13	Effective Speaking.....	1
E 14	Effective Speaking.....	1
E 15	Survey of English Literature.....	2
E 16	Survey of English Literature.....	2
E 17	English Drama Before Shakespeare....	2
E 18	Chaucer.....	2
E 19	Shakespeare.....	2
E 20	Shakespeare.....	2
E 21	Nineteenth Century Poetry I.....	2
E 22	Nineteenth Century Poetry II.....	2
E 23	Eighteenth Century Prose.....	2
E 24	Nineteenth Century Prose.....	2
E 25	American Literature to 1860.....	2
E 26	American Literature After 1860.....	2
E 27	History of the English Novel.....	2
E 28	History of the English Novel.....	2
E 29	Great European Writers.....	2
E 30	Great European Writers.....	2
E 31	Modern Literature 1895-1915.....	2
E 32	Post War Literature.....	2
<b>FRENCH</b>		
F 1	Introductory French.....	3
F 2	Elementary French.....	3
F 3	Intermediate French.....	3
F 4	Intermediate French.....	3
F 5	Advanced French.....	2
F 6	Advanced French.....	2
F 7	Readings in French Literature.....	2
F 8	Readings in French Literature.....	2

*Courses of Instruction*

Course Number	Course	Semester Hours
<b>GEOLOGY</b>		
Gy 1	General Geology.....	2
Gy 2	General Geology.....	2
Gy 5	Historical Geology.....	2
Gy 6	Historical Geology.....	2
<b>GERMAN</b>		
G 1	Introductory German.....	3
G 2	Elementary German.....	3
G 3	Intermediate German.....	3
G 4	Intermediate German.....	3
G 5	Advanced German.....	2
G 6	Advanced German.....	2
G 7	Readings in German Literature.....	2
G 8	Readings in German Literature.....	2
<b>GOVERNMENT</b>		
Gv 1	American Government and Politics ...	2
Gv 2	American Government and Politics ...	2
Gv 3	Municipal Government.....	2
Gv 4	Comparative Government.....	2
Gv 5	American Constitutional Law.....	2
Gv 6	American Constitutional Law.....	2
Gv 7	Origins of Political Theory.....	2
Gv 8	Modern Political Theory.....	2
<b>GRAPHIC ARTS</b>		
GA 5	Principles of Composition in Art.....	3
GA 6	Freehand Sketching.....	3
GA 7	History of Art.....	2
GA 8	History of Art.....	2
GA 9	Art in Industry.....	2
GA 10	Art in Merchandising.....	2
<b>HISTORY</b>		
H 1	History of Civilization.....	3
H 2	History of Civilization.....	3
H 5	Europe, 1789-1870.....	2
H 6	Europe, 1870-1938.....	2
H 7	England to 1688.....	2
H 8	England Since 1688.....	2
H 9	The United States to 1865.....	2
H 10	The United States Since 1865.....	2
H 11	Latin American History.....	2
H 12	Latin American History.....	2



*Courses of Instruction*

Course Number	Course	Semester Hours
<b>MATHEMATICS</b>		
M 1	College Algebra.....	3
M 3	Trigonometry.....	2
M 4	Analytic Geometry and Introduction to Calculus.....	5
M 5	Differential Calculus.....	3
M 6	Integral Calculus.....	3
M 7	Differential Equations I.....	3
M 8	Differential Equations II.....	3
M 9	Higher Algebra.....	3
M 10	Curve Analysis.....	3
M 11	Solid Analytic Geometry.....	3
M 12	Modern Geometry.....	3
M 13	Spherical Trigonometry.....	3
M 14	History of Mathematics.....	2
M 15	Advanced Calculus.....	3
M 16	Advanced Calculus.....	3
M 17	Series.....	3
M 18	Theory of Equations.....	3
<b>PHILOSOPHY</b>		
Ph 1	Introduction to Philosophy.....	2
Ph 2	Problems of Philosophy.....	2
Ph 3	Philosophy of Religion.....	2
Ph 4	Logic.....	2
<b>PHYSICAL EDUCATION</b>		
PE 2	Hygiene.....	1
PE 3-4	Physical Training.....	0
PE 5	Principles of Physical Education.....	2
PE 6	Play and Recreation.....	2
PE 7	History of Physical Education.....	2
PE 8	Administration of Physical Education .	2
PE 9	Football.....	2
PE 10	Floor and Apparatus Work.....	2
PE 11	Track and Field Events.....	2
PE 12	Basketball and Baseball.....	2

*Courses of Instruction*

Course Number	Course	Semester Hours
<b>PHYSICS</b>		
P 1-A	Survey of the Physical Sciences.....	4
P 2-A	Survey of the Physical Sciences.....	4
P 1	Physics I.....	3
P 2	Physics I.....	3
P 3	Physics II.....	2
P 4	Physics II.....	2
P 5	Physics Laboratory.....	1
P 6	Physics Laboratory.....	1
P 9	Advanced Physics.....	3
P 10	Advanced Physics.....	3
P 11	Advanced Physics Laboratory.....	2
P 12	Advanced Physics Laboratory.....	2
P 13	Acoustics.....	2
P 14	Acoustics.....	2
ME 20	Applied Mechanics (Statics).....	3
ME 21	Applied Mechanics (Kinetics).....	3
ME 30	Thermodynamics.....	3
EL 6	Electrical Measurements.....	2½
EL 21	Electrophysics.....	1
EL 22	Electrophysics.....	2
<b>PSYCHOLOGY</b>		
Ps 1-A	Orientation Problems.....	0
Ps 1	Introduction to Differential Psychology	2
Ps 2	General Psychology.....	2
Ps 5	Educational Psychology.....	2
Ps 6	Educational Psychology.....	2
Ps 7	Social Psychology of Everyday Life....	2
Ps 8	Social Psychology, Theory and Methods	2
Ps 9	Psychology of Personality.....	2
Ps 10	Abnormal Psychology.....	2
<b>SOCIOLOGY</b>		
S 1-A	Introduction to Social Science.....	4
S 2-A	Introduction to Social Science.....	4
S 1	Introduction to Sociology.....	2
S 2	Principles of Sociology.....	2
S 3	Social Problems.....	2

*Courses of Instruction*

Course Number	Course	Semester Hours
<b>SOCIOLOGY (Continued)</b>		
S 4	Social Pathology.....	2
S 5	Criminology.....	2
S 6	Penology.....	2
S 7	Principles of Social Ethics.....	2
S 8	The Family.....	2
S 9	Problems in Social Ethics.....	2
S 10	Social Progress.....	2
S 11	Social Control.....	2
S 12	Contemporary Sociological Trends....	2
S 13	Sociology of Religion.....	2
S 14	Social Institutions.....	2
S 15	Population Problems.....	2
S 16	Urban Sociology.....	2
S 17	Vocational Study in Sociology.....	2

*Distribution of Students in College of  
Liberal Arts  
By States and Countries  
1938-1939*

Massachusetts . . . . .	339
Connecticut . . . . .	11
New Jersey . . . . .	7
Maine . . . . .	5
New York . . . . .	5
New Hampshire . . . . .	3
Rhode Island . . . . .	2
Illinois . . . . .	1
Vermont . . . . .	1

*Foreign Countries*

Canada . . . . .	2
Columbia . . . . .	1
Iraq . . . . .	1
Poland . . . . .	1
Total . . . . .	<u>379</u>



# *Directory of Students*

## COLLEGE OF LIBERAL ARTS

1938-1939

*Freshmen*

NAME	HOME ADDRESS
Abel, Edward	Dorchester
Abrams, Bertram T.	Boston
Alla, Adolph A., Jr.	Medford
Allen, Blaine	Saugus
Austin, Harry R., Jr.	Binghamton, New York
Bacigalupo, Edward K.	Boston
Baker, Charles L.	West Roxbury
Baker, Harold R.	South Hanson
Barnum, David L., Jr.	Burlington
Batastini, Eugene O., Jr.	Danvers
Baxter, John H.	Kearny, New Jersey
Becherer, Frederick R.	Mattapan
Binder, Martin S.	Malden
Birnbaum, Herbert	Jamaica Plain
Bloom, Lawrence S.	Boston
Bornstein, David	Milton
Bradshaw, Douglas	Winthrop
Brainerd, F. Blaine	Lawrence
Brennan, James C.	Cambridge
Buckley, Richard P.	Waltham
Burnham, Robert C.	Danvers
Butcher, Stanley	Andover
Buxton, David	Sudbury
Callahan, William F.	Brockton
Campbell, John F.	Atlantic
Carey, Francis W.	Dorchester
Carlson, Melvin E.	Gloucester
Caro, Joseph H.	Boston
Carpano, Pasquale	Fall River
Chalow, Alfred J.	Dunellen, New Jersey
Clarkson, Frank C.	Brockton
Cline, Erwin H.	Stoughton
Colantonio, Ernest J.	Newton
Cole, Carl E.	Newton Lower Falls
Conant, John P.	Beverly
Constantine, Biton P.	Brighton
Cushman, Richard	Lexington
Daborowski, Ignace J.	Springfield
Davidzick, Walter	Chelsea
Dindio, Antonio, Jr.	Roslindale
Dodge, Malcolm F.	Beverly
Donovan, Daniel A., III	Swampscott
Elbling, Irving N.	Nashua, New Hampshire
Ellison, Donald L.	Waltham
Evans, Thomas	Chelsea
Fairbanks, Eugene F.	Wakefield
Faretra, Vincent J.	Allston
Ferrara, John C.	Roslindale

NAME	HOME ADDRESS
Foster, Leo	Dorchester
Frederickson, John H.	Quincy
Freundlich, Richard	Winthrop
Frongillo, George L.	Jamaica Plain
Gebelein, George C., Jr.	Wellesley Hills
Gillen, Edward B.	Dorchester
Gogan, Thomas F.	Lynn
Goldstein, Robert	Brookline
Goodwin, Roger D.	Needham Heights
Greenside, Myron	Dorchester
Griffith, Sherwood B.	Middleboro
Hadley, Richard E.	Boston
Hallberg, Carl L. E.	Quincy
Hamer, William L.	Boston
Harrison, Marvin A.	Brookline
Haseltine, Edward R.	Haverhill
Hayward, Herbert A., Jr.	Hyde Park
Hempel, Carl H. A.	Essex
Higgs, Lawrence L.	Quincy
Hill, Robert C.	Brookline
Hirshberg, Sumner D.	Medford
Hochman, Morris	New Bedford
Hogan, Wilbur J.	Springfield
Horenstein, Leon R.	Revere
Huddleston, Robert D.	Whitman
Hunt, Wilson L.	Boston
Huntsman, Nelson E.	Canton
Hyfer, Irving S.	Chelsea
Johnson, Howard F.	North Grafton
Johnson, Robert S.	Jackson Heights, New York
Kavanagh, Walter E.	Brighton
Kennedy, Richard H.	Weston
King, Joseph V.	Milton
Kravitz, Abner	Dorchester
Larner, John J.	Boston
Latkowitz, Oscar L.	Allston
Lavine, Lewis	Woonsocket, Rhode Island
Ledin, Carl W.	West Roxbury
Leland, Richard H.	Belmont
Leonard, John H.	Wellesley Hills
Levis, William A.	Andover
Littlefield, Elmer W.	Newtonville
MacKinnon, Mervin B.	Roslindale
Manfrine, Walter L.	Somerville
Manning, Lee	Cochituate
Marks, Macey P.	Lynn
McGonigle, Joseph R.	Boston
McKenna, Raymond	Boston
McKenzie, Francis W.	West Somerville
Milliken, Marland G.	Saco, Maine
Mills, Russell O.	Chelsea
Mockler, Hubert B., Jr.	Colrain
Monk, Arthur J.	Arlington
Monks, George S., Jr.	South Weymouth
Moseley, Robert E.	Milford, Connecticut
Mountain, James E.	Bretton Woods, New Hampshire
Murphy, Nathan H.	Chestnut Hill
Murphy, William P.	Brockton

NAME	HOME ADDRESS
Myers, Oliver T.	Rochester, New York
Newman, Philip W.	Leominster
Noonan, Malcolm J.	Brockton
Norton, William J.	Boston
Occhi, Amerigo H.	Somerville
Oldham, Vernon E.	Boston
Ounanian, Harding M.	Boston
Oxton, Ernest G.	Allston
Palder, Lawrence K.	Roxbury
Parker, Stanley C.	Auburndale
Parsons, William B., Jr.	Dedham
Pedell, Melvin H.	East Boston
Peridier, Paul H.	Penns Neck, New Jersey
Pitari, Nicholas J.	East Boston
Poston, Richard D.	Boston
Pothier, George A.	Waltham
Price, William K.	Walpole
Quinn, John J.	Quincy
Rachmilovitz, Ruben D.	Roxbury
Rae, William A., Jr.	Arlington
Ravven, Howard I.	Roxbury
Ray, Harold T., Jr.	Wilmette, Illinois
Reynolds, Arthur W.	Northeast Harbor, Maine
Richards, James L., II	Fitchburg
Rojzman, Gejnoch	Rowne, Wolyn, Poland
Rome, Herbert J.	Gardner
Ross, Donald	North Adams
Rubenstein, Manning I.	Roxbury
Rumrill, Edward I.	Malden
Russell, James W.	Dedham
Russell, Martin B.	Allston
Rust, Kenneth W.	Chestnut Hill
Rutberg, Seymour	Dorchester
Rutledge, Alexander H.	Winchester
Sados, Hyman	Revere
Salerno, Alfred R.	North Adams
Sangster, Arlon G.	Leominster
Sault, Raymond G., Jr.	Melrose
Sawabini, Charles	Brookline
Scarpa, Ernest J.	Lancaster
Scheffer, Harvey D. G.	Westfield, New Jersey
Schein, Donald E.	Brookline
Sears, Paul W.	Plymouth
Sennett, Arthur J.	East Boston
Sheinfeld, Albert G.	Dorchester
Shepherd, Joseph N.	Lynn
Sheridan, Philip F.	Malden
Sherman, Irving	Somerville
Shimberg, Milton	Boston
Sigliano, Edward A.	Hyde Park
Simms, Hugh P.	East Boston
Smith, Duncan R.	New London, Connecticut
Smith, Leonard W.	Dorchester
Snow, H. Leland	Milford
Spiller, Bertram	Lynn
Spriggs, J. Roger	Attleboro
Springer, Irwin H.	Dorchester
Terrell, Warren H., Jr.	New Haven, Connecticut
Tinkham, Malcolm L.	Brockton

NAME	HOME ADDRESS
Urbon, John P.	<i>Dorchester</i>
Van Cor, Frederick B.	<i>Melrose</i>
Vitale, Anthony E.	<i>New Haven, Connecticut</i>
Voyman, James S.	<i>Danvers</i>
Walsh, George W.	<i>Belmont</i>
Walsh, James J.	<i>Fall River</i>
Wasserman, Robert	<i>Dorchester</i>
Welaish, Stanley	<i>Dorchester</i>
Wiggin, Paul H.	<i>New Haven, Connecticut</i>
Wilbur, Merle R., Jr.	<i>Amesbury</i>
Wilkinson, Richard N.	<i>Saugus</i>
Willis, Robert H.	<i>Fall River</i>
Williston, Robert L.	<i>Brookline</i>
Wilson, Malcolm A.	<i>New Bedford</i>
York, Leighton H.	<i>Rockport</i>
Zisson, James P.	<i>Marlboro</i>
Zwick, Melvin	<i>Boston</i>
Zwicker, Leon P.	<i>Hyde Park</i>



## COLLEGE OF LIBERAL ARTS

1938-1939

*Upperclassmen*

NAME	CLASS	HOME ADDRESS
Abbott, George C.	1942	Peabody
Adams, Alexander P.	1942	Boston
Allicon, Phillip A.	1941	Quincy
Ames, Richard P.	1941	Milton
Anderson, Arthur S.	1941	Concord
Applebaum, Harold L.	1940	Brookline
Banks, Frederick	1941	Belmont
Belmont, Harvey T.	1942	Middleboro
Beyer, Richard C.	1939	Newton Centre
Bly, Belden G.	1940	Revere
Boyajian, John H.	1941	Melrose
Bravacos, Louis J.	1942	Woburn
Bresnahan, William A.	1939	Beverly
Browning, Robert A.	1942	Norwood
Byrne, John R.	1940	Arlington
Cahill, Paul R.	1942	Medford
Carter, Irving D.	1942	Brighton
Cassanos, James G.	1940	Woburn
Chalek, Mitchell	1942	Lynn
Cidulka, Leo	1941	Boston
Cleveland, Emmett G.	1940	Boston
Cogan, John J.	1941	Dorchester
Cole, Albert J.	1940	West Roxbury
Cole, Arthur E.	1940	Lynn
Collatos, Constantine C. N.	1941	Boston
Colligan, James	1939	Newtonville
Colt, Edward	1942	Mattapan
Connolly, James J.	1940	Waltham
Cooper, Samuel E.	1942	Chelsea
Cornwall, Leonard P.	1940	Winchester
Crocker, Denton W.	1942	Beach Bluff
Crowell, Baron H., Jr.	1941	Westboro
Curran, Robert	1941	Lynn
Damiano, Augustino J.	1942	Roslindale
Davidson, Lester	1942	Brookline
Davis, Elbridge G.	1942	Winchester
Davis, Ronald C.	1940	Quincy
DeAvellar, Joseph I., Jr.	1941	Quincy
DeCotis, Michael C.	1942	Danvers
DeLoria, Eugene J.	1940	Dedham
DeRoche, Francis R.	1942	Madison, Maine
Diamond, Harold S.	1941	Mattapan
Dimmick, Herbert R., Jr.	1942	Hyde Park
DiSesa, William H.	1942	Danbury, Connecticut
Dobbin, Rollins	1940	Jonesport, Maine
Dorman, William E.	1942	Belmont
Dwyer, Fred T.	1942	Melrose
Emerson, Denley W.	1941	Brookline
Erne, Ned A.	1942	Brookline
Etzel, Simon F.	1941	New Haven, Connecticut
Falkoff, Bernard N.	1940	Rochester, New York

NAME	CLASS	HOME ADDRESS
Field, Arthur B.	1942	Lexington
Fisher, Irving	1939	Allston
Fitzgerald, John J.	1940	Charlestown
Flanagan, John J.	1941	Malden
Flumere, Emanuel A.	1939	Natick
Flumere, John A.	1939	Natick
Forbes, George F.	1939	Arlington
Frazier, Andrew D.	1941	South Boston
Gallant, Joseph A.	1942	West Newton
Gamble, R. Eldon	1941	Saint Martin's, N. B.
Gibson, Garnet L.	1940	Salem
Ginsberg, Sumner N.	1941	Dorchester
Goldberg, Joseph A.	1942	Boston
Gordon, Charles J.	1941	Boston
Green, Sidney	1941	Dorchester
Gurney, Robert	1941	Medford
Gustavson, Robert	1942	Islington
Haas, Charles V.	1941	Roslindale
Habeshian, Ira J.	1939	Cambridge
Hainer, Herbert M.	1940	Haverhill
Halloran, John J.	1941	Manchester
Haltunen, Elias S.	1942	Fitchburg
Hamilton, Robert A.	1942	Braintree
Hanks, Theodore S.	1942	Wellesley
Harraghy, Edward J.	1941	Taunton
Harrington, Robert F.	1941	Beverly
Hayes, Richard C.	1940	Arlington
Hays, Walter I.	1942	Waltham
Helbig, John W.	1942	Greenfield
Helms, Sherwin P.	1940	Watertown
Henderson, John D.	1941	Dorchester
Hendrickson, Rudolph	1942	Quincy
Hennigar, Howard V.	1940	Whitman
Herring, John A.	1941	North Attleboro
Hills, Stanley C.	1939	Wollaston
Hiltunen, Elias B.	1940	Maynard
Holmes, Gardner W.	1941	Gloucester
Houghton, Charles C.	1942	Avon
Hultgren, William C.	1941	Winchester
Humphrey, John F.	1942	Waterbury, Connecticut
Huntington, Paul W.	1941	Pawtucket, Rhode Island
Hutchins, Hartley F.	1940	Marlboro
Jack, Paul W.	1940	Dorchester
Jackson, Philip M.	1941	Peterboro, New Hampshire
Jerzyk, Leo C.	1942	Salem
Johnson, Everett A.	1941	Worcester
Johnson, Raymond V.	1940	Braintree
Kalafatas, Nicholas J.	1942	Boston
Kaufman, Abraham	1942	Dorchester
Keating, William H., Jr.	1939	Roslindale
Kelly, William J.	1940	Roslindale
Kennedy, Walter I., Jr.	1942	North Quincy
Kennefick, Russell T.	1941	Gloucester
King, Earl W.	1940	Malden
Kohl, Wesley A.	1940	West Roxbury
Kopp, Harold W.	1939	Boston
Lennon, Leo	1941	Lincoln
Lepinsky, Nathan	1940	Dorchester
Levin, Benjamin	1940	Chelsea

NAME	CLASS	HOME ADDRESS
Linchitz, Leonard M.	1939	Roxbury
Little, William H.	1940	Malden
Lockerby, David A.	1941	Framingham
Lund, John S.	1940	Watertown
Maccini, Julius J.	1940	Everett
MacDonough, William R.	1940	Jamaica Plain
MacFarlane, George	1940	Boston
MacKerrow, Horace G.	1940	Allston
Makas, Albert S.	1940	South Boston
Malfa, Horace F.	1939	Brighton
Mann, Irving N.	1941	North Marshfield
Margolin, Reubin J.	1940	Roxbury
Marin, John C., Jr.	1940	Cliffside, New Jersey
Markell, Joseph A.	1942	Roxbury
Marshall, Alfred J.	1939	Dorchester
Marzinik, Charles	1942	Dedham
Matheson, Stuart B.	1942	Belmont
McCarthy, Alan O.	1941	Waltham
McCone, Thomas R.	1942	Roslindale
McDonald, Thomas H., Jr.	1942	Salem
McDuffee, Paul E.	1942	Saugus
McKenzie, Ernest W.	1940	Methuen
Meehan, Frank H.	1939	Belmont
Merchant, Leonard G.	1941	Randolph
Meshna, John, Jr.	1942	Malden
Milham, Russell	1940	Boston
Molineux, Carlton E.	1939	Lynn
Monteith, Howe C.	1941	North Quincy
Moore, John C., Jr.	1941	West Falmouth
Morris, Harold B.	1940	Dorchester
Mustofa, Muhammed	1939	Waverley
Mysliwy, Edward H.	1942	Salem
Nathenson, Simon	1942	Dorchester
Palmer, Quentin	1942	North Weymouth
Palmgren, Richard P.	1941	Wollaston
Palombo, Vincent A.	1940	Roslindale
Peale, Richard N.	1940	South Hamilton
Perry, Waldo E.	1942	Holden
Polner, Morris	1941	Mattapan
Pomerantz, Bernard S.	1941	Hartford, Connecticut
Poslushny, Stanley J.	1942	Newark, New Jersey
Powell, James T.	1939	Medford
Rammo, Abdul-Jabbar S.	1939	Mosul, Iraq
Raymond, Richard F.	1942	Lynn
Rich, William N., Jr.	1941	West Newton
Richmond, John F.	1942	Milton
Rogers, Stanley L.	1940	Great Meadows, N. J.
Savage, Philip N.	1940	Boston
Sawyer, Clarence E., Jr.	1942	South Portland, Maine
Segal, Edward	1940	Dorchester
Shain, Charles	1942	Mattapan
Shanker, George A.	1941	Mattapan
Smith, Duane S.	1942	Lexington
Smith, Frazer T.	1941	Dorchester
Snell, Robert E.	1942	Melrose
Stone, Maxwell D.	1940	Waltham
Sullivan, Cornelius M.	1941	Cambridge
Sullivan, Frederick	1941	Burlington
Symonds, Dale E.	1942	Jasper, New York

NAME	CLASS	HOME ADDRESS
Takvorian, Ephram	1942	Cambridge
Taloumis, George P.	1942	Salem
Tavelli, Clinton E.	1940	Williamstown
Thomas, Reginald C.	1941	Newtonville
Tobey, Benjamin C.	1942	Falmouth
Toubman, William S.	1940	Hartford, Connecticut
Trachtenberg, Sidney	1939	East Haven, Connecticut
Tracy, Charles A., Jr.	1940	Lexington
Trefethen, James B.	1940	Wareham
Trottier, Robert W.	1941	Lowell
Tse, Albie N.	1940	Boston
Vautrinot, Donald	1942	Hull
Villegas, Ernest	1942	Manizales, Columbia
Vovos, George A.	1939	Newburyport
Wallace, William	1941	Everett
Wallace, William L.	1941	Newport, Nova Scotia
Warren, Richard D.	1940	Lawrence
Weatherby, John H.	1940	Natick
Webber, Joseph W.	1939	Boston
Weintraub, William	1940	Newburyport
Williams, John G.	1939	Bennington, Vermont
Wilson, Albert	1942	Medway
Wood, Leonard F.	1941	Middleboro
Yetten, Raymond S.	1941	Waltham
Zardeskas, Edward J.	1941	Dorchester
Zax, Samuel	1942	Roxbury
Ziegler, William R.	1942	Dorchester

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OFFICE HOURS  
DEPARTMENT OF ADMISSIONS  
9 A.M. to 4 P.M. daily  
Saturday 12.00 N'N  
Wednesday Evenings by  
Appointment

# Northeastern University

College of Liberal Arts

Paste a Small  
Photo or  
Snapshot  
in This Space

## APPLICATION FOR ADMISSION

(A non-returnable fee of five dollars must accompany this application. Make checks, money orders, or drafts payable to Northeastern University)

Boston, Mass. ....19

To Director of Admissions:

I (Name in full) .....  
hereby respectfully apply for admission to the College of Liberal Arts to  
major in the field checked:

☐ Chemistry

☐ English

☐ Mathematics and Physics

☐ Sociology and Economics

for the school period beginning. ....19....

NOTE: The applicant should fill out the following form (both sides) with care.

Residence ..... Street

Town or City.....

State.....Tel.....

Date of Birth.....Age.....

Place of Birth.....

Race.....Religion.....Nationality.....

Graduate of.....High School, Year.....

Location of High School.....

Name of Principal.....

Other high schools you have attended.....

Names of Principals.....

If not a graduate, state the years of attendance and why you left.....

.....

Father's, Mother's, or Guardian's Name.....

.....

Address.....

Father's work, business or profession.....

Names and addresses of two other persons, to whom we may direct inquiries concerning you.

.....

.....

(OVER)

Weight.....Height.....

Have you any physical infirmities? Explain, if any.....

Defects of speech.....

Defects of hearing.....

Defects of sight.....

Bodily infirmities.....

Is your general health good, fair, or poor?.....

Have you done collegiate work elsewhere?.....

If so, name and address of college or university.....

Name of person who will furnish transcript of your college record.....

Do you expect advance credit for past collegiate work?.....

List all athletics and other extra curricula high school activities you have engaged in.....

Names and addresses of all past employers with brief description of each job, length of employment, and wages received:.....



Date .....

Milton J. Schlagenhauf, Director of Admissions  
Northeastern University  
360 Huntington Avenue  
Boston, Mass.

Dear Sir:

Please send me additional information on the following points:

.....

.....

.....

.....

.....

.....

.....

.....

Name .....

Street and Number .....

Town or City .....

State .....



# NORTHEASTERN UNIVERSITY

## COLLEGE OF LIBERAL ARTS

Offers a broad program of college subjects serving as a foundation for the understanding of modern culture, social relations, and technical achievement. Varied opportunities available for vocational specialization. Degree: Bachelor of Science or Bachelor of Arts.

## COLLEGE OF ENGINEERING

Offers curricula in Civil, Mechanical (with Diesel, Air Conditioning, and Aeronautical options), Electrical, Chemical, Industrial Engineering, and Engineering Administration. Classroom study is supplemented by experiment and research in well-equipped laboratories. Degree: Bachelor of Science in the professional field of specialization.

## COLLEGE OF BUSINESS ADMINISTRATION

Offers three curricula: Accounting, Banking and Finance, and Business Management. Each curriculum represents in itself a broad survey of business technique, differing from the others chiefly in emphasis. Degree: Bachelor of Science in Business Administration.

---

## SCHOOL OF LAW

Offers day and evening undergraduate programs admitting those who present a minimum of two years of college work, each program leading to the degree of Bachelor of Laws. Also graduate program in the evening leading to the degree of Master of Laws. Co-educational.

## SCHOOL OF BUSINESS

Offers curricula through evening classes in Accounting, Management, Law and Business Management, and Engineering and Business leading to the degree of Bachelor of Business Administration in specified fields or the Bachelor of Commercial Science in Law and Business Management. Preparation for C.P.A. Examinations. Shorter programs may be arranged. Co-educational.

## PRE-LEGAL PROGRAM

Offers in connection with the College of Liberal Arts special day and evening programs providing the equivalent of two years of college work and preparing for admission to the undergraduate programs of the School of Law. Co-educational in the evening.

---

The Colleges of Liberal Arts, Engineering, and Business Administration offer day programs for men only and are conducted on the co-operative plan. After the freshman year students may alternate their periods of study with periods of work in the employ of business or industrial concerns at ten-week intervals. Under this plan they gain valuable experience and earn a large part of their college expenses.

---

In addition to the above schools the University has affiliated with it and conducts: the Lincoln Technical Institute offering, through evening classes, courses of junior college grade in various fields of engineering; and the Lincoln Preparatory School, an evening school preparing for college entrance and offering other standard high school programs.

---

For further information regarding any of the above schools, address

NORTHEASTERN UNIVERSITY  
360 Huntington Avenue, Boston, Massachusetts  
Telephone: KENmore 5800



# Northeastern University

DAY DIVISION

COLLEGE OF  
**ENGINEERING**

1939-1940



BOSTON, MASSACHUSETTS

January, 1939



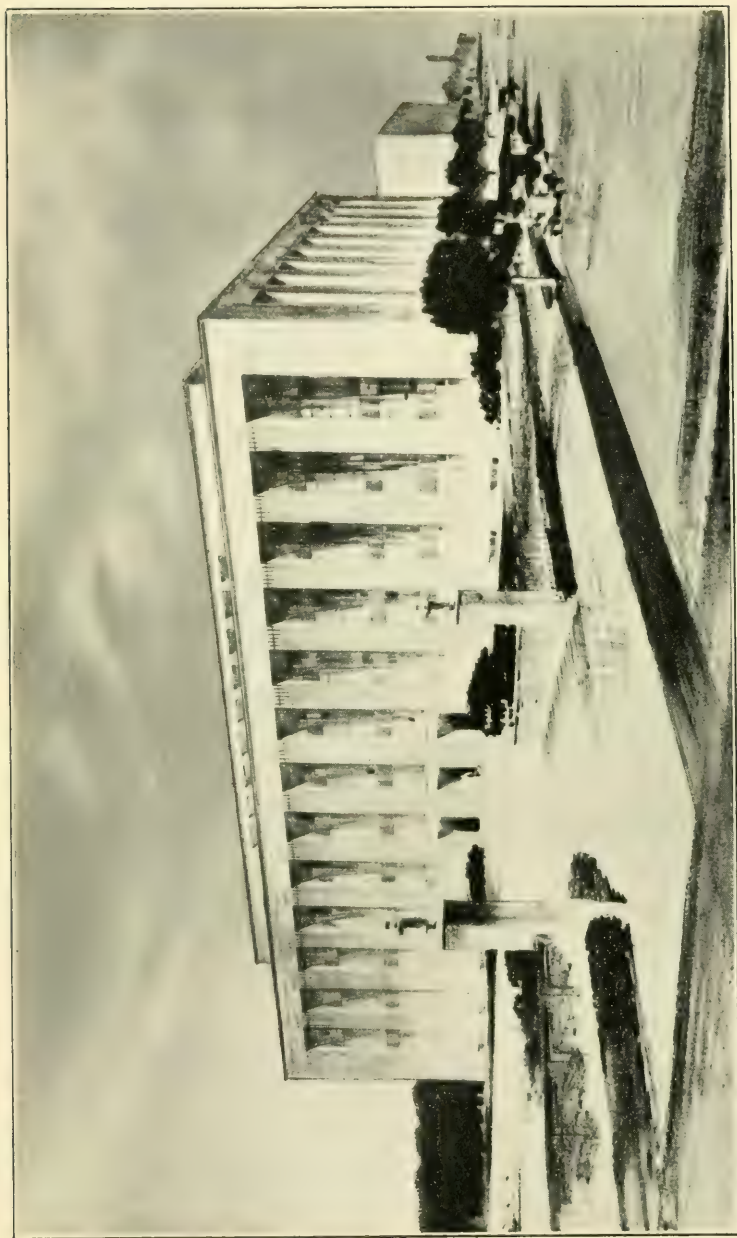


### *Gifts and Bequests*

Northeastern University will welcome gifts and bequests for the following purposes:

- (a) For its Building Program
- (b) For general endowment
- (c) For specific purposes which may especially appeal to the donor.

While it is not necessary, it would be appreciated if those contemplating gifts or bequests would confer with the President of the University regarding the University's needs before legal papers are drawn.



WEST BUILDING — NORTHEASTERN UNIVERSITY

# NORTHEASTERN UNIVERSITY

## DAY DIVISION

### COLLEGE OF ENGINEERING

*Conducted on the Co-operative Plan*

*Catalogue for 1939-1940*

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# Freshman Calendar, 1939-1940

## SEPTEMBER

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

## OCTOBER

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

## NOVEMBER

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

## DECEMBER

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

## JANUARY

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

## FEBRUARY

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29		

## MARCH

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

## APRIL

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

## MAY

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

## JUNE

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

## JULY

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

## AUGUST

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

Days on which college exercises are held are indicated thus: **1, 2, 3.**

Sundays, holidays, and vacations are indicated thus: 1, 2, 3.



# Upperclass Calendar, 1939-1940

## SEPTEMBER

S	M	T	W	T	F	S
					①	②
③	④	⑤	⑥	⑦	⑧	⑨
⑩	11	12	13	14	15	16
⑰	18	19	20	21	22	23
⑳	25	26	27	28	29	30

## OCTOBER

S	M	T	W	T	F	S
①	2	3	4	5	6	7
⑧	9	10	11	⑫	13	14
⑮	16	17	18	19	20	21
⑳	23	24	25	26	27	28
㉑	30	31				

## NOVEMBER

S	M	T	W	T	F	S
			1	2	3	4
⑤	6	7	8	9	10	11
⑫	13	14	15	16	17	18
⑰	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>
㉒	<b>27</b>	<b>28</b>	<b>29</b>	③①		

## DECEMBER

S	M	T	W	T	F	S
					1	2
③	4	5	6	7	8	9
⑩	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>
⑰	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>
⑳	㉑	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>
㉓						

## JANUARY

S	M	T	W	T	F	S
	①	2	3	4	5	6
⑦	8	9	10	11	12	13
⑭	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>
㉑	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>
㉒	29	30	31			

## FEBRUARY

S	M	T	W	T	F	S
				1	2	3
④	5	6	7	8	9	10
⑪	12	13	14	15	16	17
⑮	19	20	21	㉒	23	24
㉑	26	27	28	29		

## MARCH

S	M	T	W	T	F	S
					1	2
③	4	5	6	7	8	9
⑩	11	12	13	14	15	16
⑰	18	19	20	21	22	23
㉒	25	26	27	28	29	30
㉓						

## APRIL

S	M	T	W	T	F	S
	1	2	3	4	5	6
⑦	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>
⑭	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>
㉑	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>
㉒	<b>29</b>	<b>30</b>				

## MAY

S	M	T	W	T	F	S
			1	2	3	4
⑤	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>
⑫	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>
⑰	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>
㉒	<b>27</b>	<b>28</b>	<b>29</b>	③①	31	

## JUNE

S	M	T	W	T	F	S
						1
②	3	4	5	6	7	8
⑨	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>
⑮	⑰	⑱	⑲	㉑	㉒	㉓
㉑	㉒	㉓	㉔	㉕	㉖	㉗
㉘						

## JULY

S	M	T	W	T	F	S
	①	②	③	④	⑤	⑥
⑦	⑧	⑨	⑩	⑪	⑫	⑬
⑭	⑮	⑯	⑰	⑱	⑲	⑳
㉑	㉒	㉓	㉔	㉕	㉖	㉗
㉘	㉙	㉚	㉛			

## AUGUST

S	M	T	W	T	F	S
				①	②	③
④	⑤	⑥	⑦	⑧	⑨	⑩
⑪	⑫	⑬	⑭	⑮	⑯	⑰
⑱	⑲	㉑	㉒	㉓	㉔	㉕
㉖	㉗	㉘	㉙	㉚	㉛	㉜

Days on which Division A students are in college are indicated thus: 1, 2, 3.

Days on which Division B students are in college are indicated thus: **1, 2, 3.**

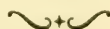
Sundays, holidays, and summer periods are indicated thus: ①, ②, ③.

See page 5 for statement of summer review periods and upperclass vacations.

# Calendar for the College Year, 1939-1940

1939

- AUGUST 30 *Wednesday*. Entrance condition examinations.
- SEPTEMBER 4 *Monday*. Labor Day. (College exercises omitted.)
- SEPTEMBER 7 *Thursday*. Registration and opening of college for freshmen. Students failing to register promptly on September 7 will be charged a late registration fee of five dollars (\$5).
- SEPTEMBER 11 *Monday*. Opening of college for Division A upperclassmen.
- OCTOBER 12 *Thursday*. Columbus Day. (College exercises omitted.)
- NOVEMBER 20 *Monday*. Opening of college for Division B upperclassmen.
- NOVEMBER 29 *Wednesday*. College exercises omitted after 1:00 p.m.
- NOVEMBER 30 *Thursday*. Thanksgiving Day. (College exercises omitted.)
- DECEMBER 25 *Monday*. Christmas Day. (College exercises omitted.)
- DECEMBER 21 }  
JANUARY 3 } Vacation for freshmen.



1940

- JANUARY 1 *Monday*. New Year's Day. (College exercises omitted.)
- JANUARY 29 *Monday*. Second semester begins for freshmen and Division A upperclassmen.
- FEBRUARY 22 *Thursday*. Washington's Birthday. (College exercises omitted.)

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- |           |    |  |
|-----------|----|--|
| APRIL     | 6  | <i>Saturday.</i> College year ends for Division A upperclassmen.   |
| APRIL     | 8  | <i>Monday.</i> Second semester begins for Division B upperclassmen.  |
| MAY       | 25 | <i>Saturday.</i> College year ends for freshmen.   |
| MAY       | 30 | <i>Thursday.</i> Memorial Day. (College exercises omitted.)  |
| JUNE      | 15 | <i>Saturday.</i> College year ends for Division B upperclassmen.   |
| JUNE      | 16 | <i>Sunday.</i> Baccalaureate Sermon.   |
| JUNE      | 17 | <i>Monday.</i> Bunker Hill Day. (College exercises omitted.)   |
| JUNE      | 18 | <i>Tuesday.</i> Commencement.<br>Review courses or vacation begins for Division A upperclassmen.<br>Summer period of co-operative work begins for Division B upperclassmen.            |
| JULY      | 4  | <i>Thursday.</i> Independence Day. (College exercises omitted.)  |
| JULY      | 13 | <i>Saturday.</i> Review courses end for Division A upperclassmen.  |
| JULY      | 29 | <i>Monday.</i> Vacation begins for Division B upperclassmen.<br>Summer period of co-operative work begins for Division A upperclassmen.  |
| AUGUST    | 12 | <i>Monday.</i> Review courses begin for freshmen and Division B upperclassmen.   |
| SEPTEMBER | 2  | <i>Monday.</i> Labor Day. (College exercises omitted.)   |
| SEPTEMBER | 5  | <i>Thursday.</i> Registration and opening of college for freshmen. Students failing to register promptly on September 5 will be charged a late registration fee of five dollars (\$5). |
| SEPTEMBER | 7  | <i>Saturday.</i> Review courses end for Division B upperclassmen and for freshmen.   |
| SEPTEMBER | 9  | <i>Monday.</i> Opening of college year 1940-1941.  |

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FLORENCE ELSIE AVELLAR	70 Fenway, Boston
<i>Secretary to the Treasurer of the University—116W</i>	
LULU THYNG BRINCKLOW	109 Peterborough St., Boston
<i>Secretary to the Director of Admissions—150W</i>	
MARJORIE ELIZABETH BUNKER	38 Lakewood Rd., Newton Hlds.
<i>Publicity Office—352W</i>	
HELEN MUIR COOLBROTH	11 Windsor Rd., West Somerville
<i>University Press, South Building</i>	
VIRGINIA CUSHING DARLING	23 Brimmer St., Boston
<i>General Offices of the University—115W</i>	
THELMA GERTRUDE DUNN	30 Freeman Pl., Needham
<i>Bookkeeper, Treasurer's Office—115(A)W</i>	
DAISY MILNE EVERETT	1095 Highland Ave., Needham Heights
<i>Bookkeeper, Treasurer's Office—115(A)W</i>	
RUTH PHILLIPS FIOTT	173 Marianna St., East Lynn
<i>Admissions Office—150W</i>	
MILDRED CURTIS GARFIELD	2142 Commonwealth Ave., Auburndale
<i>Secretary to the Dean—152W</i>	
EDNA JANE GARRABRANT	8 Maynard St., Arlington
<i>Secretary to the Director of Co-operative Work—253W</i>	
LUCY GORHAM HAGER	34 Linnaean St., Cambridge
<i>Assistant Librarian—Library, East Building</i>	
MARJORIE DAYTON HOLCOMB	18 Solon St., Newton Hlds.
<i>Secretary to the President—186W</i>	
ELSIE HINCKLEY HUNT	100 Linden St., Allston
<i>Admissions Office—150W</i>	
BARBARA KNIGHT	254 Clifton St., Malden
<i>Secretary to the Dean of Instruction—352E</i>	
HELEN LOUISE KOLDERUP	14 Holden Rd., Belmont
<i>Cashier, Treasurer's Office—115W</i>	
MARGARET LOUISE MARCHANT	45 Lincoln St., Winchester
<i>Admissions Office—150W</i>	
FLORENCE MASKELL	42 Brush Hill Rd., Milton
<i>Co-operative Work Office—253W</i>	



DOROTHY BRETT MASON	15 Wenham St., Jamaica Plain
School Administration Office—254W	
DOROTHY MILNE MURRAY	204 Fair Oak Park, Needham
Secretary to the Director of Student Activities—355W	
ALYCE ANN NICHOLS	507 Chestnut St., Needham
Bookkeeper, Treasurer's Office—115(A)W	
CAROLINE FRANCES PETTINGELL	1654 Massachusetts Ave., Cambridge
Bookkeeper, School Administration Office—254W	
MARJORIE GRAFFTE PROUT	1179 Boylston St., Boston
Office of the Dean—152W	
MADelyn EDYTHE RALPH	64 Beach Ave., Swampscott
Secretary to the Executive Secretary—153W	
GRETCHEN DOUGLASS RANDALL	48 Milk St., Newburyport
School Administration Office—254W	
JESSIE PAINE RHODES	2 Perkins Sq., Jamaica Plain
Secretary to the Director of School Administration	
PRISCILLA SPEARE	66 Pelham Street, Newton Centre
Secretary to the Dean of Students—256W	
RUBY KATHLEEN SWEETLAND	139 College Ave., Somerville
Student Activities Office—355W	
JEANNETTE THAYER	4 Hamilton Rd., Waltham
Co-operative Work Office—253W	
MARY DIXON TURNER	163 Forest St., Melrose
Student Union Office—357W	
GRACE LISCOM WATKINS	76 Glendale St., Dorchester
Assistant Librarian—Library, East Building	
MARGARET MARY WEIR	41 Stewart St., Quincy
Admissions Office—150W	

### Office and Laboratory Assistants

FRANCIS R. ARCHIBALD	Assistant in the Library
JOSEPH P. BEATON	Assistant in the Department of Admissions
ANDREW BIERENBROODSPOT	Assistant in Mechanical Engineering
LORIMER P. BROOKS	Assistant in Electrical Engineering
JOHN R. BYRNE	Assistant in the Department of Admissions
JACK H. CASWELL	Assistant in the Student Activities Office
RALPH A. COLEMAN	Assistant in Chemistry
JAMES COLLIGEN	Assistant in the Student Union
JAMES J. CONNOLLY	Assistant in the Student Activities Office
BERNARD N. FALKOFF	Assistant in Chemistry
GEORGE F. FORBES	Assistant in the Library
BERNARD J. GAFFNEY	Assistant in Chemistry
WILFRED N. GAGNE	Assistant in Electrical Engineering
ROBERT J. GINTHER	Assistant in Chemistry
CHARLES V. HAAS	Assistant in the Library
ROBERT F. HARRINGTON	Assistant in the Department of Biology
MERRILL D. HART	Assistant in the Office of the Dean
GARDNER W. HOLMES, JR.	Assistant in the Department of Admissions
ISRAEL KATZ	Assistant in Mechanical Engineering
RUSSELL T. KENNEFICK	Assistant in the Office of the Dean
KAROL J. KRISTYAN	Assistant in Mechanical Engineering
WILLIAM H. LITTLE	Assistant in the Student Union
ALBERT S. MAKAS	Assistant in the Department of Physics
ARTHUR O. MARTENSEN	Assistant in the Department of Co-operative Work
FRANCIS S. MASCIANICA	Assistant in Mechanical Engineering
RALPH C. MACDONALD	Assistant in Chemistry
WILLIAM A. McGRATH	Assistant in Chemical Engineering
HOWE C. MONTEITH	Assistant in the Library

JAMES H. NYE  
WILLIAM C. PETRASKE  
NICKOS V. PETROU  
STANLEY L. ROGERS  
GUSTAV ROOK  
FRANK J. SANSEVERINO  
HENRY F. SILSBY  
LEWIS B. SMITH  
REGINALD C. THOMAS  
LORING M. THOMPSON

*Assistant in Electrical Engineering*  
*Assistant in Chemistry*  
*Assistant in Electrical Engineering*  
*Assistant in the Department of Admissions*  
*Assistant in the Department of Physics*  
*Assistant in Chemistry*  
*Assistant in Chemical Engineering*  
*Assistant in Chemistry*  
*Assistant in the Department of Biology*  
*Assistant in the Office of the Dean*

## University Lecturers

SANFORD BATES  
FORMER SUPERINTENDENT OF FEDERAL PRISONS  
*"Leaders for Leisure"*

ROLLO WALTER BROWN  
AUTHOR, LECTURER  
*"If I Should Write Your Biography"*

SMEDLEY D. BUTLER  
GENERAL, U. S. MARINE CORPS, RETIRED  
*"War Is a Racket"*

BERNARD C. CLAUSEN  
MINISTER, FIRST BAPTIST CHURCH, PITTSBURGH  
*"Fight Somebody Your Size"*

J. ANTON DE HAAS  
PROFESSOR OF INTERNATIONAL RELATIONSHIPS, HARVARD UNIVERSITY  
*"Where Do We Go From Here?"*

LLOYD C. DOUGLAS  
AUTHOR, LECTURER  
*"Experiences of an Author"*

HARRY N. HOLMES  
NATIONAL YOUTH RADIO PREACHER  
*"Using Big Maps in a Shrinking World"*

H. V. KALTENBORN  
EDITOR, AUTHOR, NEWS COMMENTATOR  
*"Kaltenborn Edits the News"*

TEHYI HSIEH  
STATESMAN, ECONOMIST, AUTHOR  
*"Storms over Asia"*

FRANK KINGDON  
PRESIDENT, NEWARK UNIVERSITY  
*"Giants and Grasshoppers"*

HENRY CABOT LODGE, JR.  
UNITED STATES SENATOR FROM MASSACHUSETTS  
*"The National Outlook"*

J. EDGAR PARK  
PRESIDENT, WHEATON COLLEGE  
*"The Secret of Success"*

GERHART SEGER  
FORMER MEMBER OF GERMAN REICHSTAG  
*"The Source of Hitler's Strength"*

RALPH W. SOCKMAN  
MINISTER, CHRIST CHURCH, NEW YORK CITY  
*"The New Patriotism"*

HOWARD THURMAN  
PROFESSOR OF PHILOSOPHY, HOWARD UNIVERSITY  
*"The Challenge of India"*

## *Chapel Preachers*

DR. CHARLES N. ARBUCKLE  
MINISTER, FIRST BAPTIST CHURCH, NEWTON

DR. RICHARD H. BENNETT  
MINISTER, PAYSON PARK CHURCH, BELMONT

DR. EDWIN PRINCE BOOTH  
PROFESSOR OF CHURCH HISTORY, BOSTON UNIVERSITY SCHOOL OF THEOLOGY

DR. DWIGHT BRADLEY  
MINISTER, UNION CONGREGATIONAL CHURCH, BOSTON

REVEREND ROBERT WOOD COE  
MINISTER, LEYDEN CONGREGATIONAL CHURCH, BROOKLINE

RABBI BERYL D. COHON  
RABBI, TEMPLE ISRAEL, BOSTON

DR. FRANK E. DUDDY  
MINISTER, NORTH CONGREGATIONAL CHURCH, CAMBRIDGE

DR. NEWTON C. FETTER  
MINISTER TO BAPTIST STUDENTS IN GREATER BOSTON

DR. C. LESLIE GLENN  
MINISTER, CHRIST CHURCH, CAMBRIDGE

REVEREND NORMAN D. GOEHRING  
MINISTER TO LUTHERAN STUDENTS IN GREATER BOSTON

REVEREND WILLIAM H. GYSAN  
MINISTER TO UNITARIAN STUDENTS IN GREATER BOSTON

DR. CHARLES W. HAVICE  
EXECUTIVE SECRETARY, NORTHEASTERN STUDENT UNION

DR. ARTHUR LEE KINSOLVING  
MINISTER, TRINITY CHURCH, BOSTON

REVEREND CARL H. KOPF  
MINISTER, MOUNT VERNON CHURCH, BOSTON

DR. ASHLEY D. LEAVITT  
MINISTER, HARVARD CONGREGATIONAL CHURCH, BROOKLINE

DR. ELMER A. LESLIE  
PROFESSOR OF HEBREW AND OLD TESTAMENT LITERATURE, BOSTON UNIVERSITY

REVEREND FATHER MADDUX  
PRIEST, CHURCH OF ST. JOHN THE EVANGELIST, BOSTON

DR. BOYNTON MERRILL  
MINISTER, SECOND CHURCH, NEWTON

REVEREND SAMUEL H. MILLER  
MINISTER, OLD CAMBRIDGE BAPTIST CHURCH, CAMBRIDGE

DR. PHILLIPS E. OSGOOD  
MINISTER, EMMANUEL CHURCH, BOSTON

# Northeastern University

## *Purpose and Program*

NORTHEASTERN UNIVERSITY from the outset has been developed around the simple yet practical purpose of meeting human needs in distinctive and serviceable ways, maintaining flexibility in program and organization in order that constant adjustment could be made to changing needs.

Pursuant to this purpose, the University has evolved a definite plan of education which embraces primarily Co-operative Education by day and Adult Education by night. So far as the New England States are concerned, Northeastern University is the only institution whose day colleges, other than the School of Law, are conducted under the Co-operative Plan. The several schools and programs of the University are operated either under the name "Northeastern University" or by its affiliated schools, the Lincoln Schools, and The Huntington Day School for Boys. The following is a brief outline of the principal types of educational opportunities offered.

1. In the field of Co-operative Education there are three day colleges — the College of Liberal Arts, the College of Engineering, and the College of Business Administration. All of these colleges offer five year curricula. The College of Liberal Arts offers majors in the usual fields of the arts and the sciences leading to the degrees of Bachelor of Arts and Bachelor of Science. The College of Engineering, one of the largest engineering colleges in the United States, has curricula in Civil, Mechanical (with Diesel, Air-Conditioning, and Aeronautical options), Electrical, Chemical, and Industrial Engineering. The College of Business Administration has curricula in Accounting, Banking and Finance, and Business Management. The College of Engineering and the College of Business Administration confer the degree of Bachelor of Science with specification indicating the field of specialization. The Co-operative Plan under which all of these day colleges operate enables the student to alternate regular periods of classroom instruction with supervised employment in an industrial or commercial position, thus combining theory and practice in an exceedingly effective manner. Apart from the educational advantages of the Co-operative Plan is the opportunity for self-support while the student is pursuing his studies at Northeastern University. During the co-operative periods, students not only gain experience but are also paid for their



services. Approximately three hundred business and industrial concerns co-operate with Northeastern University in making this program effective.

2. The School of Law conducts both a day and an evening undergraduate program which prepares for admission to the bar and for the practice of the law and leads to the degree of Bachelor of Laws. It also conducts a graduate program in the evening leading to the degree of Master of Laws.
3. The Adult Education Program has been developed in the evening work of the School of Law as indicated above and in the School of Business whose classes meet in the evening. The School of Business has curricula in Management, Accounting, Law and Business Management and Engineering and Business. This School awards the Bachelor of Business Administration degree with specification and the Bachelor of Commercial Science degree in Law and Business Management. A pre-legal program is also available in the evening offering the equivalent of two years of college work and preparing for admission to the School of Law.
4. In order that larger groups of men and women might be served through its evening schools, Northeastern University operates divisions of the School of Law and the School of Business in co-operation with the Young Men's Christian Association in Worcester and Springfield and of the School of Business in co-operation with the Providence Young Men's Christian Association. With the establishment of the divisions, thoroughgoing methods of supervision were instituted and have been consistently followed and improved, with the result that the divisional work is conducted upon a highly efficient basis.
5. The Adult Education Program has also been developed through the Lincoln Schools, which are affiliated with and conducted by Northeastern University. The classes in these schools are held at convenient evening hours. The Lincoln Technical Institute offers curricula upon a junior college level in various phases of engineering; whereas the Lincoln Preparatory School, accredited by the New England College Entrance Certificate Board, prepares students for admission to college and offers other standard high school programs.
6. The Huntington Day School for Boys, also affiliated with and conducted by Northeastern University, is the outgrowth of a demand in the city of Boston for an urban preparatory

school with high educational standards which would furnish thorough preparation for admission to the leading colleges and universities. While easily accessible to the various sections of Boston and to the suburbs, it has the facilities of a country day school and offers a country day school program. This School is one of the leading preparatory schools of the country.



### *Organization*

Northeastern University is incorporated as a philanthropic institution under the General Laws of Massachusetts. The State Legislature, by special enactment, has given the University general degree granting powers.

The Corporation of Northeastern University consists of men who occupy responsible positions in business and the professions. This Corporation elects from its membership a Board of Trustees in whom the control of the institution is vested. The Board of Trustees has four standing committees: (a) an Executive Committee which serves as an Ad Interim committee between the regular meetings of the Board of Trustees and has general supervision of the financial and educational policies of the University; (b) a Committee on Housing which has general supervision over the buildings and equipment of the University; (c) a Committee on Funds and Investments which has the responsibility of administering the funds of the University; (d) a Development Committee which is concerned with furthering the development plans of the University.

The Board of Trustees has also created, through its by-laws, an Executive Council, consisting of the President, the Secretary, and the two Vice-Presidents of the University. To the Executive Council the Board has allocated broad powers.

# Northeastern University and Affiliated Schools

## Statistical Summary

1937-1938

	<i>Administrative Officers and Faculty</i>	<i>Students</i>
I. General Administration	8	
II. Northeastern University		
College of Liberal Arts	79	1905
College of Engineering		
College of Business Administration		
School of Law	46*	1949*
School of Business	101*	1531*
III. Schools affiliated with and conducted by Northeastern University		
Lincoln Schools	52	1048
Huntington Day School for Boys		
Regular Term	16	197
Summer Term	9	122
	<hr/>	<hr/>
Total	311	6752
Less Duplicates	39	460
	<hr/>	<hr/>
Net Total	272	6292

\*These figures include the administrative officers, faculties and students of the Divisions of the University in Worcester, Springfield and Providence.

## The Co-operative Plan

### *How It Works*

THE co-operative plan works in the following manner. Upperclassmen are divided into two nearly equal groups, one of which is called Division A and the other Division B. Each man is assigned a job with some business or industrial concern. So far as possible each man in one Division is paired with a man in the other Division, so that the two, by taking turns, may occupy one job throughout the entire year. In September the Division A student returns to the University for ten weeks of classroom work. At the end of that time he goes out to work ten weeks with a co-operating firm. His place at the University is then taken by his *alternate*, the corresponding Division B student. When ten weeks more have passed, the Division A man returns to college, and the Division B man returns to the co-operative job. The alternation of work and classroom study continues throughout the year, except that one working period in the summer for each division is six weeks in length instead of ten. An upperclassman thus has twenty weeks at college, twenty-six weeks at co-operative work, and six weeks of vacation each year.

### *Faculty Co-ordinators*

Students are assigned to a co-ordinator, who interviews them periodically during their freshman year for the purpose of determining their background, abilities, temperaments, and aptitudes. During these interviews the co-ordinator discusses various fields of activity and answers such questions as the students may have in regard to the many phases of business and industry. Each student is studied in the light of his physical condition, scholastic ability, and other factors affecting his probable success in vocational life. These interviews culminate in a mutual agreement between the student and his co-ordinator regarding the field of co-operative work in which the student is to be placed. During his upperclass years the student continues to have frequent conferences with his co-ordinator regarding vocational adjustments and personal problems. In this way the progress of every student is observed and co-ordinated with his college work to the end that he may obtain maximum values from his training at Northeastern.



### *Placement*

The co-ordinator visits co-operative firms and arranges with them for the employment of the students under his charge. The range of opportunities available to Northeastern students is wide, including practically all phases of industrial life. As a general rule, sophomores are placed upon routine and laborious jobs through which they may prove their fitness for more responsible work. The jobs upon which Northeastern students are employed are in no sense protected opportunities. They are regular jobs under actual business conditions and are held in competition with other sources of supply. The only special privilege accorded Northeastern students is that of attending college on the co-operative plan. The University expects every student to stand on his own feet while he is on co-operative work, and advancement to the more responsible jobs is based entirely upon merit.

### *Supervision and Guidance*

While the University does not adopt a paternal attitude toward co-operative work, it nevertheless assumes certain responsibilities toward students and co-operating firms. Co-ordinators visit each job in order that the employer may report upon the student's achievement and that necessary adjustments may be made. Co-ordinators supervise the assignment of students to various jobs and in conjunction with employers arrange for promotions and training schedules. Problems that arise on co-operative work are adjusted by mutual agreement of co-ordinator, student, and employer. In the event of special difficulties or dissatisfaction, the case may be adjusted by the Committee on Co-operative work, which comprises several members of the faculty.

Through a series of co-operative work reports prepared during their working periods, students are led to analyze their jobs and to develop a thoughtful and investigative attitude toward their working environment. A most important phase of co-operative work is the opportunity afforded for guidance by the frank discussion of actual problems encountered on the job. The intimate contact between co-ordinator and student is of great worth in helping the student to get the most value from each co-operative work assignment. While the University endeavors to provide every possible opportunity for its students, it expects them at the same time to take the initiative and to assume the responsibility involved in their individual development. To every student are available the counsel and guidance of the faculty, and every resource at its disposal. But the faculty does not coerce students who are uninterested or unwilling to think for themselves.



The co-operative plan is thus designed specifically to provide actual working conditions which shall afford the student practical experience, give meaning to his program of study, and train him in reliability, efficiency, and team work.

### *Correlation of Theory and Practice*

Co-operating companies employ the students in the various departments of their establishments. The training is thorough. To derive the greatest value from his co-operative work the student is advised to continue in the employ of his co-operating firm for *at least one year* after graduation, since certain types of work which would afford him valuable experience cannot be made available to him while he is alternating between work and study. Statistics compiled over a period of many years show that on the average about fifty per cent of each graduating class do remain with their co-operating employers after graduation.

### *Co-operative Work Reports*

The values to be derived from the practical experiences are further enhanced by required report writing. These co-operative work reports are written during the working periods by all co-operative students. A complete job analysis is required as the first report written on any new co-operative work assignment. Subjects of other reports are selected by the student after conference with his Co-ordinator of Co-operative Work, by whom they must be approved. The reports are designed to encourage observation and investigation on the part of the students and to help them to appreciate more fully the extent and value of their experience. These reports are carefully read by the Co-ordinator and are discussed with the student during the following college period. Exceptionally valuable results are obtained from these reports. The value derived must necessarily be directly proportional to the conscientious and intelligent concentration of effort by the student upon this phase of the work.

### *Co-operative Work Records*

Complete and detailed records are kept of the co-operative work of each student. They are based upon reports made by the employer at the end of each working period; upon occasional personal interviews between the employer and the Co-ordinator; and upon various evidences of the student's attitude toward all the phases of his co-operative work. It is not possible for the student to secure a degree unless this part of the curriculum is completed satisfactorily. These records of practical experience serve as a valuable future reference for the Alumni Placement Division of the Department.

### *Positions Available*

Because of uncertainties of business conditions, as well as other reasons, beyond its control, the University cannot and does not guarantee to place students. Although the University in no way discriminates among students of various races and religions, considerable difficulty has been experienced in placing at co-operative work the members of certain racial groups and students who are physically handicapped. However, past experience has demonstrated that students who are willing and capable of adapting themselves to existing conditions are almost never without employment except in periods of severe industrial depression.

### *Earnings*

*The rates of pay for students are low, primarily because the students are given the privilege of attending college on the co-operative plan. The employer thus feels justified in devoting time to the instruction of the students and in transferring them at reasonable intervals from one department to another.*

For budgeting purposes the following scale of wages may be considered as the *minimum rates* to be paid the students in times of normal business.

\$12 per week for second year students

\$14 per week for third year students

\$16 per week for fourth and fifth year students

Statistical experience shows that the pay actually received by students averages appreciably above these figures.

### *Location of Work*

It is the policy of the University to assign students to co-operative work within commuting distance of their homes. This is not always possible, however, and at times it may be necessary for students to live away from home in order to obtain satisfactory and desirable co-operative work assignments.

### *Types of Co-operative Work*

Insofar as possible students are placed at co-operative work in that general field for which they express preference, provided that aptitude, physical ability, temperament and other personal qualities appear to fit them for this field. Usually students are placed first in the lower ranks of an organization where they may learn the fundamental requirements of the business.

For example, a student interested in manufacturing might be started as an operative on some machine in the plant. As his progress and other conditions warranted he would be transferred to other types of work such as shipping, inspecting, cost finding, adjusting complaints, or bookkeeping, and so on, so that in the course of his four years of co-operative training he would have the opportunity to acquire a substantial background in at least some of the functions of factory administration. This progressive type of training is more readily obtained in the employ of one company. A change of company each year provides more a change of environment than a progression of experiences.

Engineering firms, manufacturing companies, public utilities, and many other types of enterprises are employing Northeastern students. In some cases definite training schedules have been established so as to permit the student one full year in each of several important departments.

### *Typical Co-operative Training Schedules*

These schedules are arranged with the basic idea of giving the student a comprehensive training through the several different departments, but must of necessity be varied in accordance with the needs of those departments.

#### BOSTON & MAINE RAILROAD CO.

ONE YEAR — Erecting Shop

ONE YEAR — Machine Shop

ONE YEAR — General work in Machine Shop and Erecting Shop

ONE YEAR — Mechanical Engineer's Dept.

#### BOSTON EDISON COMPANY

The schedule of the Boston Edison Company is divided into the following general classifications. Very few co-operating students obtain experience in all branches, but students progress from year to year in the respective branches as conditions require.

##### *Standardizing*

- (a) Testing and standardizing of electrical instruments
- (b) Miscellaneous standardization
- (c) Repairs on electrical instruments
- (d) Laboratory high voltage tests

##### *Steam Practice*

- (a) Turbine, engine and boiler tests
- (b) Instrument tests and repairs
- (c) Miscellaneous tests

##### *Electrical Testing*

- (a) Testing and repairing of electrical instruments in power stations and sub-stations
- (b) Cable tests
- (c) High voltage tests on apparatus and in the field
- (d) Checking up construction work
- (e) Miscellaneous electrical tests

*Chemical Engineering*

- (a) Fuel analysis
- (b) Miscellaneous tests and analysis of oils, water paints, and other materials

*Photography**Office Work*

## HUNT-SPILLER MANUFACTURING CORPORATION

ONE YEAR General laboratory and plant work, including preparation of samples

## Pyrometry

Use and care of Metallurgical apparatus

ONE YEAR Complete analysis of coal, coke, limestone, sand, iron, soil, etc.

ONE YEAR Keeping of general metallurgical records, filing, and making of reports

ONE YEAR Analysis for combined, graphitic, and total carbon with a complete knowledge of a carbon combustion apparatus

## General Information

### *Tuition*

THE tuition for all curricula in the College of Engineering is \$250 per year. Certain fees and deposits are also required as specified in the following paragraphs. A complete statement of tuition and fee payments is given on page 28.

### *General Library and Materials Fee*

All students are charged a general library and materials fee of twelve dollars (\$12) each year. This fee is payable at the time of registration and is included in the schedule of payments on page 28.

### *Student Activities Fee*

Each student in the Day Division is charged a student activities fee of fifteen dollars (\$15). This fee is payable at the time of registration and is included in the schedule of payments on page 28. This fee supports in part certain student activities, and includes membership in the *Northeastern University Athletic Association*, and subscription to *The Northeastern News*, the college paper.

The services of a physician are also available for all students under this fee. Minor ailments are treated by the college health officers without additional charge. Should the student show signs of more serious illness, he is immediately advised to consult a specialist or return to his home, where he can get further treatment.

### *Chemical Laboratory Deposit*

All students taking chemical laboratory work are required to make a deposit at the beginning of each year, from which deductions are made for breakage, chemicals, and destruction of apparatus in the laboratory. Any unused portion of this deposit will be returned to the student at the end of the college year. If the charge for such breakage, chemicals or destruction of apparatus is more than the sum deposited, the student will be charged the additional amount.

Freshmen make a chemical laboratory deposit of ten dollars (\$10); upperclassmen, a deposit of fifteen dollars (\$15).



### Schedule of Payments for Freshmen

<i>Date Due</i>		<i>Amount</i>
September 7, 1939	Tuition	\$125.00
	Fees	27.00
	Chem. Lab. Dep.	10.00
		<hr/> \$162.00
February 5, 1940	Tuition	125.00

### Schedule of Payments for Upperclassmen

<i>Date Due</i>	<i>Division A</i>	
	<i>Tuition and Fees</i>	
September 11, 1939	Tuition	**\$125.00
	Fees	*27.00
		<hr/> \$152.00
January 29, 1940	Tuition	125.00
	<i>Division B</i>	
November 20, 1939	Tuition	**125.00
	Fees	*27.00
		<hr/> \$152.00
April 8, 1940	Tuition	125.00

There will be a \$2.00 deferred payment fee added to all bills which are not paid by the Saturday following the date on which payments fall due. When further extensions of time are given on payments which have been previously deferred, an additional \$2.00 fee will be charged for each extension.

Failure to make the required payments on time, or to arrange for such payments, is considered sufficient cause to bar the student from classes or suspend him from co-operative work until the matter has been adjusted with the Director of School Administration.

### Graduation Fee

A fee of ten dollars (\$10) covering graduation is required by the University of all candidates for a degree. This fee must be paid before the end of the seventh week of the second term in the senior year.

### Payments

All payments should be made at the treasurer's office. Checks should be made payable to Northeastern University.

\*Chemical Engineering students pay a Chemical Laboratory deposit of \$15.00 additional.

\*\*This tuition payment is \$100 instead of \$125 for all upperclassmen enrolled in the College of Engineering prior to September 1, 1938.

### *Refunds*

The University assumes the obligation of carrying the student throughout the year. Instruction and accommodations are provided on a yearly basis; therefore, no refunds are granted except when students are compelled to withdraw on account of personal illness.

### *Expenses*

The following tables, compiled from expense returns submitted by the student body, give an idea of freshman expenditures under ordinary conditions.

#### *Estimated College Expenses for a Freshman*

Application Fee.....	\$5.
Tuition.....	250.
General Library and Materials Fee.....	12.
Chemical Laboratory Deposit.....	10.
Student Activities Fee.....	15.
Books and Supplies.....	35.
Drawing Instruments and Equipment.....	25.
	<u>\$352.</u>

#### *Estimated Living Expenses Per Week for a Freshman Residing Away from Home*

Room Rent.....	\$3.75
Board.....	7.00
Laundry.....	1.00
Incidentals.....	2.00
	<u>\$13.75</u>

The figures given above are approximate and may not exactly apply to any one student; however, they will be found to represent fairly well the expense of a freshman who lives comfortably but without extravagance.

### *Text Books and Supplies*

The Northeastern University Bookstore, located in the basement of the West Building, is a department of the University and is operated for the convenience of the student body. All books and supplies which are required by the students for their work in the University may be purchased at the Bookstore. In addition, the Bookstore also carries a large number of general supplies.

### *Part Time Work*

Students who find it necessary to accept part-time jobs, while attending college, may through the Director of Co-operative Work obtain spare-time work doing odd jobs.

No student is justified in assuming that the University will take care of his expenses or guarantee to supply him with work sufficient to meet all his needs.

A student should have available a reserve fund adequate to provide for immediate needs and unexpected contingencies. This should ordinarily amount to at least the first year's tuition plus the student activity and other fees, room rent, and board for several weeks, or a total of about \$500.

### *Examinations*

Examinations covering the work of the term are usually held at the close of each term. Exceptions may be made in certain courses, where, in the opinion of the instructor, examinations are not necessary.

Condition examinations will be given in all subjects during the week of July 8, 1940 for Division A students, and the week of September 2, 1940 for Division B students. Condition examinations are not given for laboratory courses.

Special examinations may be arranged for only by vote of the Administrative Committee and for all such examinations the University requires the payment of a special fee of five dollars (\$5).

### *Grades*

A student's grade is officially recorded by letters, as follows:

- A superior attainment
- B above average attainment
- C average attainment
- D lowest passing grade, poor attainment (the faculty will accept only a limited amount of grade D work towards the Bachelor's degree)
- F failure, removable by condition examination
- FF complete failure; course must be repeated in class
- I Incomplete, used for intermediate grades only and signifies that the student has not had time to make up work lost through excusable enforced absence from class
- L used in all cases of the removal of a failure by condition examination or by attendance at summer term

A student who does not remove a condition before that course is again scheduled, a year later, must repeat the course. A condition in more than one subject involves the loss of the privilege of being a candidate for graduation with the student's class, and may involve the loss of assignment to co-operative work.

The responsibility for the removal of a condition rests with the student, who is required to ascertain when and how the condition can be removed.

### *Dean's List*

A Dean's List, issued at the end of each semester, contains the names of upperclass students who have an honor grade average in all subjects during the preceding period. Freshmen who achieve high scholastic standing are included on a Freshman Honor List, which is published at the end of each grading period. No student under disciplinary restrictions is eligible for either of the honor lists.

### *Report Cards*

Freshman reports are issued at the end of each grading period; upperclass reports, at the end of each semester. In addition, a special report on review subjects pursued during the summer term will be issued immediately at its close. Questions relative to grades are to be discussed with the student's faculty adviser.

Students are constantly encouraged to maintain a grade of work which is of acceptable quality. Parents and students are always welcomed by the Dean of Students, the Director of School Administration, and advisers for conference upon such matters.

Parents or guardians will be notified whenever students are advised or required to withdraw from the University.

### *Conduct*

It is assumed that students come to the University for a serious purpose, and that they will cheerfully conform to such regulations as may from time to time be made. In case of injury to any building, or to any of the furniture, apparatus, or other property of the University, the damage will be charged to the student or students known to be immediately concerned; but if the persons who caused the damage are unknown, the cost for repairs may be assessed equally upon all the students of the University.

Students are expected to observe the accepted rules of decorum, to obey the regulations of the University, and to pay due respect to its officers. Conduct inconsistent with the general good order of the University, or persistent neglect of work, if repeated after admonition, may be followed by dismissal, or, if the offense be a less serious one, the student may be placed upon probation. The student so placed upon probation may be dismissed if guilty of any further offense.

It is desired to administer the discipline of the University so as to maintain a high standard of integrity and a scrupulous regard for truth. The attempt of any student to present as his own any work which he has not performed, or to pass any examination by improper means, is regarded as a most serious offense, and



renders the offender liable to immediate expulsion. The aiding and abetting of a student in any dishonesty is also held to be a grave breach of discipline.

### *Scholastic Year for Seniors*

Seniors of either division, who are candidates for a degree in the current year, must have completed all academic work, class assignments, theses, regular and special examinations, before twelve o'clock noon of the Saturday next following the close of recitations for seniors.

### *Attendance*

Students are expected to attend all exercises in the subjects they are studying unless excused by the Director of School Administration. Exercises are held, and students are expected to devote themselves to the work of the University, between 9:00 A.M. and 5:00 P.M. except for a lunch period, on every week day except Saturday. Saturday classes are held only between 9:00 A.M. and 1:00 P.M.

No "cuts" are allowed. A careful record of each student's attendance upon class exercises is kept. Absence from regularly scheduled exercises in any subject will seriously affect the standing of the student. It may cause the removal of the subject or subjects from his schedule. If he presents a reasonable excuse for the absence, however, he may be allowed to make up the time lost and be given credit for the work; but he must complete the work at such time and in such manner as his instructor in the course may designate.

Laboratory work can be made up only when it is possible to do so during hours of regularly scheduled instruction.

Absences from exercises immediately preceding or following a recess are especially serious and entail severe penalties.

Attendance at all mass meetings of the student body is compulsory. Exceptions to this rule are made only when the student has received permission from the Director of Student Activities previous to the meeting from which he desires to be absent.

### *Housing Regulations*

The University endeavors to exercise due consideration and care for the student's welfare while he is in residence. This necessitates the adoption of the rules and regulations presented herewith.



1. Assignments will be made when the student registers.
2. Students may inspect rooms before accepting an assignment; after reaching a decision students must notify the office of the Director of School Administration, 254W.
3. Students who accept room assignments must retain them for the period of their residence, unless given permission by the Director of School Administration to change.
4. Students are not permitted to live in unsupervised quarters. Under no conditions are groups of students permitted to lease apartments without prior approval of the Director of School Administration and the Dean of the Day Division.
5. Students are not permitted to engage rooms without the prior approval of the University. Those violating this rule will be required to give up such rooms immediately and will be assigned by the University to approved quarters.
6. Violation of any of the above rules is considered a breach of discipline and will be dealt with accordingly.

### *Residence*

It has been found to be much more satisfactory for the student to live within easy access of Boston, especially during periods in college, than to live out twenty-five or thirty miles. The saving of time and effort more than offsets any increased expense. Residence in Boston is advisable, as it gives the student opportunity to use the college facilities outside of class hours, and to confer more easily with his instructors about his college work.

### *Dormitories*

At present the University does not maintain dormitories. Provision, however, is made for students to secure rooms in the vicinity. Many freshmen prefer to take room and board at the fraternity houses, which are all supervised by the University through faculty advisers. For information relative to such housing write the Director of Admissions.

Rooms in the dormitory of the Huntington Avenue Branch of the Boston Y.M.C.A. may be secured only through the Housing Department of the Y.M.C.A. The applicant must present himself in person to a representative of the Department before assignment will be made.

Applicants desiring to room in the Association dormitory are advised to write the Housing Department of the Huntington Avenue Branch, 316 Huntington Avenue, Boston, Massachusetts.

## *Buildings and Equipment*

### *Boston—A Great Educational Center*

THE fact that Northeastern University is in Boston broadens the educational and cultural opportunities of its students.

Few other cities in the country are so rich in the finest elements of American life. Many of its historic buildings, such as the Old State House, Faneuil Hall, and the Old North Church, have become museums for the preservation of old documents, paintings, and other collections representative of early Colonial life. The Boston Public Library and the Museum of Fine Arts, both within a few blocks of the University Buildings, are widely noted for their treasures of literature and art. Even nearer to the University is Symphony Hall, home of the world-famous Boston Symphony Orchestra. And the many churches within Greater Boston not only afford the opportunity of hearing distinguished preachers but through their student clubs and young people's societies make possible for students a fine type of social and intellectual life.

### *Location of University Buildings*

The Day Division of Northeastern University is housed in three buildings located on Huntington Avenue, Boston, just beyond Massachusetts Avenue and opposite the historic Boston Opera House. The main administrative offices of the University are located in the West Building, a four-story brick structure added to the physical plant of Northeastern in 1938.

### *Transportation*

The chief railroad centers of Boston are the North and South Stations. From the North Station board a car going to Park Street, at which junction transfer to any Huntington Avenue car. At South Station board a Cambridge subway train for Park Street Under. There change to a Huntington Avenue car and alight at the West Building of Northeastern University.

### *West Building*

The West Building contains over 100,000 square feet of floor space for administrative and instructional purposes. In the basement are the Mechanical Engineering offices, laboratories, and machine shops; the University Bookstore; the Husky Hut, where light refreshments are sold; several classrooms; and a large drafting room used chiefly by the Department of Mechanical Engineering. Ample area is also provided in the basement for a student check room, lockers, and various storage rooms and vaults.

On the first floor are located the President's office, the General Offices of the Secretary-Treasurer, and the offices of the Vice-Presidents of the University. A large public reception room adjoins the main lobby and several small classrooms are located in both wings of the building. This floor was given to the University in memory of Lieutenant Stafford Leighton Brown by his mother.

The Department of Physics has a suite of offices, laboratories, and research areas in the south wing of the second floor. A large lecture hall with raised seats accommodating over three hundred people occupies the central area of the second floor. This room is fully equipped for both lantern slide and motion picture projection, and is provided with up-to-date motor driven ventilating equipment. The room is fitted with a lecture demonstration desk having all necessary accessories including gas, water, various types of electricity, and hoods for the removal of gases. A fully stocked preparation room adjoins this lecture hall. The offices of the Director of School Administration, the Director of Co-operative Work, and the Dean of Students, a large number of small classrooms and several conference rooms complete the layout of the second floor.

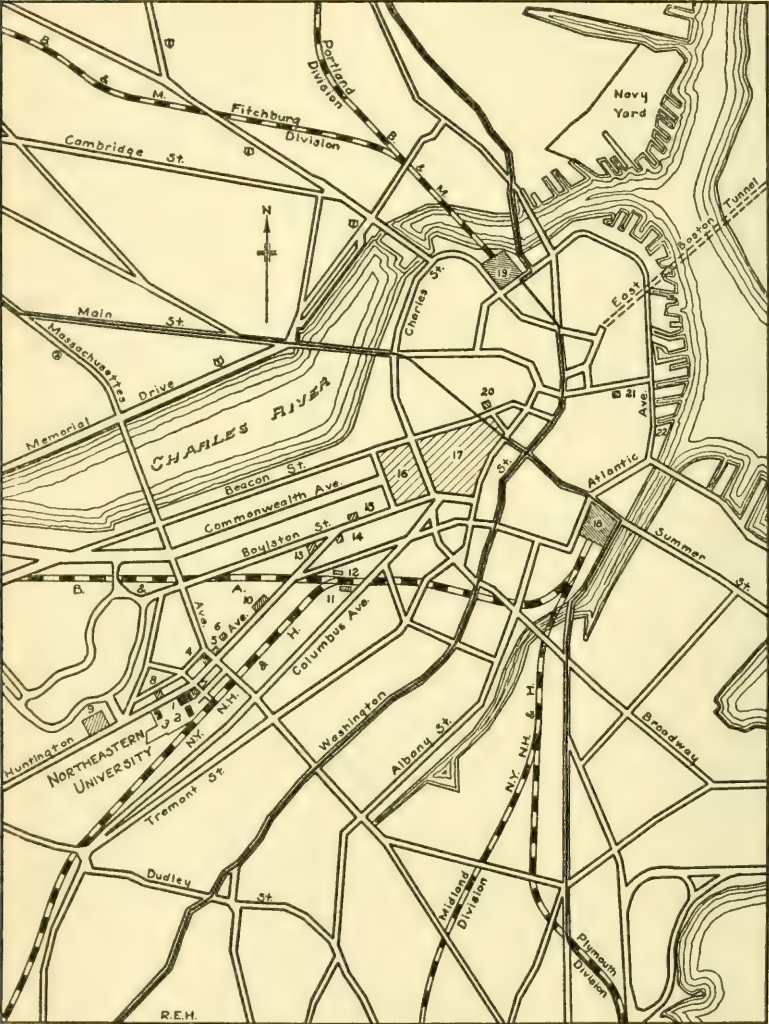
Student lounging and recreation rooms sponsored by the Northeastern Student Union occupy the Huntington Avenue side of the third floor, together with the offices of the Department of Student Activities. This floor also contains a small University Chapel, a lecture hall similar to that on the second floor but slightly smaller, and a number of large classrooms equipped with special tables for freshman drawing classes.

A group of large, fully equipped laboratories for Inorganic Chemistry and Qualitative Analysis, Physical Chemistry and Quantitative Analysis, and Organic Chemistry occupy the principal areas of the fourth floor. The Chemistry Department has its offices and a large lecture hall equipped especially for courses in chemistry adjoining these laboratories. A number of research areas for special purposes, a large central stockroom, a dark room, and several balance rooms complete the chemistry suite. Three large drafting rooms having blackboards especially equipped with sliding T-squares, an Art Room, and the offices of the Drawing Department, are also found on the fourth floor.

In the penthouse on the roof there is a faculty-alumni lounge, a radio laboratory, and an astronomy laboratory.

### *South Building*

The South Building of Northeastern University comprises a basement and two stories. The Department of Electrical Engineering occupies the entire basement with its offices, Dynamo



MAP SHOWING NORTHEASTERN UNIVERSITY AND VICINITY



*Key to Map**Northeastern University and Vicinity*

1. EAST BUILDING
2. SOUTH BUILDING
3. WEST BUILDING
4. SYMPHONY HALL
5. HORTICULTURAL HALL
6. CHRISTIAN SCIENCE CHURCH
7. NEW ENGLAND CONSERVATORY OF MUSIC
8. BOSTON OPERA HOUSE
9. BOSTON MUSEUM OF FINE ARTS
10. MECHANICS EXHIBITION HALL
11. BACK BAY STATION
12. TRINITY PLACE
13. BOSTON PUBLIC LIBRARY
14. TRINITY CHURCH
15. MUSEUM OF NATURAL HISTORY
16. BOSTON PUBLIC GARDEN
17. BOSTON COMMON
18. SOUTH STATION
19. NORTH STATION
20. STATE HOUSE
21. U. S. CUSTOMS HOUSE
22. ROWES WHARF



Laboratories, High Tension Laboratory, Electrical Measurements Laboratory, Instrument Room, and research areas.

On the first floor are located the Departments of Civil and of Industrial Engineering. A Hydraulics and Sanitary Engineering Laboratory, a Methods Engineering Laboratory, a Civil Engineering drafting room, and several classrooms complete the layout of this floor. A large lecture room, several classrooms, the Chemical Engineering Unit Operations Laboratory, the Chemical Engineering Department Offices, and the Biology Laboratory are located on the second floor.

### *East Building*

The East Building of Northeastern University is the educational wing of the Huntington Avenue Branch of the Boston Y.M.C.A. On its second floor are located the library, a branch library and reading room, and several classrooms. The third floor contains a laboratory for statistical work, several departmental offices, and additional classrooms. On the fourth floor are located the Department of English, the Department of Modern Languages, several large lecture rooms, and a spacious Civil Engineering drafting room.

Jacob P. Bates Hall, located in the East Building, has a seating capacity of 400. The hall is equipped with a motion picture machine and has a large stage, suitable for entertainments of various kinds.

Bates Hall is an important center for various student activities. Here the band and the orchestra have their rehearsals, the glee club gives its entertainments and some of the dramatic work is presented. Numerous student socials and small group dinners frequently are held here.

### *Natatorium*

The swimming pool, 75 feet long by 25 feet wide, is supplied with filtered water and is heated to the proper temperature by an elaborate system of pipes. It is one of the finest of its kind in New England.

### *Gymnasium*

This structure, the funds for which were provided by the relatives of the late Samuel Johnson, is known as the Samuel Johnson Memorial Gymnasium. The gymnasium provides the following facilities: three gymnasiums, a twelve-lap running track, two large exercise rooms, boxing and wrestling rooms, handball and squash courts, bowling alleys, showers, steam baths, massage rooms, and electric cabinet baths.

### *Lecture Assembly Halls*

Through special arrangement, Jordan Hall, Symphony Hall, and the Boston Opera House are made available for assembly purposes. These halls provide ample space for student activity assemblies and for special lectures by noted men. All the students in college at any period assemble for one hour each week throughout the college year. More than half of the assembly sessions are devoted to interests and activities developed by the students themselves. The other assembly periods are devoted to special lectures, sometimes under the direction of the student body and sometimes under the direction of the faculty. The special lectures are devoted to those elements of life which count most in the development of a man's viewpoint and his character.

### *Equipment for Physical Training*

Northeastern has exceptional facilities for all-round physical training. The gymnasium is one of the most complete in New England. Adjoining the building is a large field equipped for athletics. Here are two tennis courts, an outdoor gymnasium, a rifle range, a baseball cage, jumping pits, and a track with a 100-yard straightaway.

### *Huntington Field*

Northeastern University owns and operates a large athletic field a short distance from the University. This field, known as the Huntington Field, provides ample facilities for track, baseball, football, and other outdoor sports. A bus service maintained between the field and the University makes it possible for students to get back and forth with a minimum loss of time. A new and commodious field house has recently been erected at the field as well as ten sections of stadium seats capable of seating 2,000 spectators.

### *Design and Drafting Rooms*

The University possesses large, light, and well-equipped drawing rooms for the carrying on of the designing and drafting which forms so important a part of engineering work. These rooms are supplied with lockers containing the drawing supplies, files containing blue prints, and photographs of machines and structures that represent the best practice. Drafting room blackboards are equipped with traveling straight edge devices which facilitate speed and accuracy in blackboard demonstrations.

### *Libraries*

The library service of Northeastern University comprises the following units:

1. The Main Library, located on the second floor of the East Building, includes three reading rooms in which are available all of the general reference books, many of the professional and scientific volumes, and all of the periodicals (approximately 100) to which the University subscribes. This library is under the direction of a librarian and two assistants, all of whom have had special training for the work. Main library hours are as follows:

9:00 A.M. to 10:00 P.M. Daily  
2:00 P.M. to 9:00 P.M. Sundays  
12:00 M to 9:00 P.M. Holidays

2. The Branch Library, also located on the second floor of the East Building, houses most of the books on engineering and management with the exception of those in the field of chemical engineering which, for greater convenience of students in this department, are kept in the Main Library. The Branch Library is in charge of a corps of student assistants and is open from 8:45 A.M. to 5:15 P.M. daily except Sundays. Students have access directly to the shelves which contain books on reserve for particular courses as well as general reference works.

3. A general reading room and library is maintained by the Northeastern Student Union in Room 356, West Building. The books located here are chiefly non-technical works dealing with contemporary affairs, religious problems, international relations, travel, etc., among which students may browse during periods of relaxation. A few of the literary and religious periodicals are also available in this room.

4. Special departmental libraries are maintained by the various instructional departments in the College of Engineering. These are kept chiefly in the offices of instructors where the books may be assigned to individual students or to groups for special reports or thesis work. Such books are catalogued in the Main Library but are permanently assigned to the instructional departments concerned.

### *Boston Public Library*

All members of the University, whether resident or non-resident students, have the privilege of taking books from the Boston Public Library and of using the library for general reference and study. Inasmuch as this is one of the best in the country, it presents unusual opportunities to the students. Within a five minutes' walk from the University, it enables students to have unlimited reference at any time to books and periodicals bearing upon their studies.

## Laboratory Equipment

### *Field Instruments of Civil Engineering*

THE Department of Civil Engineering is provided with a variety of excellent equipment for field work. The instruments have been chosen to make possible the working out of advanced as well as elementary field problems, and to acquaint the student with the principal makes and types of instruments in general use.

For compass work there are seven compasses and an assortment of steel and wood range poles. Probably no better location could be found for demonstrating to students the phenomenon of local attraction than the immediate vicinity of the University. For measuring angles and elementary traverse work, the following equipment is available:

- 2 Keuffel and Esser one minute transits
- 5 Buff and Buff one minute transits
- 2 Berger one minute transits
- 2 Wissler one minute transits
- 1 Gurley one minute transit
- 1 Poole one minute transit
- 1 Hutchinson one minute transit

For elementary differential leveling or profile leveling the following instruments are available.

- 2 Keuffel and Esser levels
- 3 Berger levels
- 3 Buff and Buff levels

Both Wye and Dumpy levels are included among these.

For instruction in surveying, the College also possesses a sufficient number of steel tapes, metallic tapes, range poles, and Philadelphia level rods to equip completely all of the field parties in the various surveying courses at the same time. Some of these field parties can be supplied with Lenk tape rods or with Boston rods.

Traverses run in the course in Surveying I are required to conform with the quality of workmanship set forth by the Massachusetts Land Court "Class A" regulations. The following equipment is reserved for such work and for thesis preparation:

- 2 Berger 30 second transits
- 2 Buff and Buff 30 second transits
- 1 Berger one minute transit
- 1 Buff and Buff one minute transit



All of these transits are nearly the same, having  $6\frac{1}{4}$ " horizontal circles equipped with full vertical arcs. For measuring horizontal distances the field parties are fully equipped with Lufkin (instantaneous) No. 236D tapes. These tapes are compared and carefully checked with the Invar tape before being used.

For topographical work there are available seven plane table outfits: 2 Buff and Buff, 2 Gurley, 2 Keuffel and Esser, and 1 Berger. All of the transits in the Civil Engineering Department are equipped with stadia hairs. In both the plane table and stadia surveying the College is equipped to send out either stadia rods or Philadelphia level rods.

For hydrographic surveying there is a Gurley electric current meter with the necessary rods and recording apparatus for making stream flow observations. A sextant is available for measuring angles in connection with hydrographic surveying.

### *Triangulation Station*

The College of Engineering has set on the roof of the East Building a triangulation station known as "Station Northeastern," which is established as part of the regular course from Massachusetts triangulation Stations State House and Mt. Auburn. The latitude and longitude of this station have been accurately checked in a thesis run from important triangulation points in eastern Massachusetts. A tripod signal can be erected on "Station Northeastern." Other triangulation stations located on such hills as Corey Hill and Parker Hill are available for use of Northeastern students. For measuring the angles of a triangulation scheme the department possesses a 20 second precise Buff and Buff triangulation transit and a Berger 10 second repeating theodolite. An Invar steel tape manufactured by Société Genevoise d'Instruments de Physique, which has been calibrated and checked by the Bureau of Standards, is used for base line measurements and for checking the steel tapes.

### *Levels and Level Rods*

For ordinary precise work such as is done in the average city or town for bench mark control, the following equipment is available: Bausch & Lomb precise level and a Berger precise engineer's level. The College is also equipped for doing barometric leveling, for which it has an aneroid barometer manufactured by Reynolds of England. For accurate checking of these bench marks and comparing them with the United States geodetic work and for comparing bench marks with those found in various cities and towns with the Boston Base and the U. S. Geodetic Base, there are a Buff and Buff Coast and Geodetic level and a Gurley Coast and Geodetic level rod.



For solar observations a Berger 1 C 30 second transit equipped with prismatic lens and a Berger solar attachment is used. Two of the 30 second transits are equipped with  $45^\circ$  mirrors in the sun shades and full vertical arcs for making polaris observations.

### *Demonstration Models*

The Department of Civil Engineering has had constructed a number of brass and wooden models of typical engineering structures. The following are kept conveniently at hand for classroom demonstrations.

1.

Floor Beam Connection to Girder — Through Girder Railway Bridge. Model one-third size. (Shows also, typical knee brace connection to floor beam and girder as well as lateral bracing in plane of bottom flange.) Model is constructed of white wood with rubber-headed nails for rivets.

2.

Bottom Chord Joint Detail ( $L_2$ ) of a 150' Span Single Track Through Steel Railway Bridge of the Warren Type. Model is of white pine and one-quarter size.

3.

Top Chord Joint Detail ( $U_2$ ) of a 150' Span Single Track Through Steel Railway Bridge of the Warren Type. Model is of white pine, one-quarter size, and shows lateral and sway bracing.

4.

Hip Joint Detail ( $U_1$ ) of 150' Span Single Track Through Steel Railway Bridge of the Warren Type. Model is one-third size and white pine. It shows a typical example of portal bracing.

5.

Complete Model of 80' Span Single Track Through Girder Bridge. Model is an exact reproduction, one-sixteenth size, using brass plates and angles of uniform thickness (0.040") and riveted together with 1-16" diameter copper rivets.

The bridge is reproduced from a complete design previously made and including web and flange splices.

### *Hydraulics and Sanitary Engineering Laboratory*

Laboratories of the Civil Engineering Department include much demonstration equipment for use in connection with courses in hydraulics. A standard circular sharp-edged orifice and a Venturi meter, each equipped with appropriate manometers, permit the study of flow through pipe lines. For measuring flow in channels there are two weirs, one a suppressed rectangular weir with a

fixed crest and the second equipped with removable plates providing either a V notch, a contracted rectangular, or a parabolic weir.

A tank equipped with standard circular orifice, standard short tube, or re-entering tube, has been installed for the purpose of demonstrating the measurement of flow discharging into the atmosphere. Water is circulated about the laboratory by means of a direct connected centrifugal pump. Platform scales and a weighing tank are available to check the results obtained in the demonstrations outlined above.

The following Weather Bureau apparatus has been installed in the laboratory for purposes of research in problems in sanitary engineering: standard thermometer, maximum-minimum thermometer, sling psychrometer, standard snow and rain gage, recording hygrothermograph, station barometer, and an electric tipping bucket rain gage recorder.

The Sanitary Research Laboratory is designed to be used for research by the faculty and senior Civil Engineering students in connection with thesis problems, and for demonstrations of methods of sanitary analysis to students taking courses CI 21 and CI 22. The laboratory is equipped with tables, sink, glassware, chemical apparatus, chemicals, balances, microscope, drying oven, water bath, muffle furnace,  $37\frac{1}{2}^{\circ}\text{C}$ . incubator, gas analysis apparatus, and other necessary equipment so that a complete analysis of either water or sewage may be made in accordance with the procedure outlined by "Standard Methods of Water Analysis" published by the American Public Health Association.

### *Mechanical Engineering Laboratories*

The Mechanical Engineering Department has a suite of well equipped laboratories, containing a large variety of modern machines run by steam, gasoline, water, and electricity, and occupying over 10,000 square feet of floor space in the basement of the West Building.

The laboratory is provided with a canal of 14,000 gallons capacity which serves the various pumps, weir boxes, and condensers. Special areas have been set aside and equipped for oil testing, concrete mixing, mechanics research, and similar purposes.

#### *Steam Apparatus*

Steam is supplied to the laboratory directly from the steam mains of the Boston Edison Company, or from the auxiliary power plant operated by the University and the Boston Y.M.C.A. A Uniflow steam engine of fifty horsepower capacity and of the latest design is so equipped that a complete engine test may be run on the machine. The auxiliary apparatus connected with

the engine includes a prony brake for measuring the output of the machine while a surface condenser is tied in with the exhaust line in order to obtain the steam consumption.

A Chicago steam-driven air compressor is arranged to make complete tests on both the steam and air ends of the machine. This compressor is also connected to a surface condenser.

A Warren direct-acting steam pump is connected up to run a standard pump test, the steam end being tied in with a surface condenser and the water end with a rectangular weir for measuring the quantity of water delivered by the pump.

A twelve horsepower Curtis steam turbine of the impulse single-stage type, to which is directly connected an absorption dynamometer or water brake, is available for testing. The steam end of this turbine is piped to a Worthington surface condenser and also to a Schutt-Koerting ejector condenser.

A small Sturtevant horizontal steam engine is equipped for a complete test with a prony brake for the measurement of power output.

Other steam-driven apparatus includes a steam pulsometer pump, a steam injector, two small vertical steam engines for valve setting experiments, a heat exchanger for determining heat transfer between steam and water and a Lee steam turbine of twelve horsepower rating driving a two-stage centrifugal pump.

Apparatus is also set up for experiments on the flow of steam through an orifice and for the determination of moisture content in steam through the use of throttling and separating steam calorimeters.

### *Power Plant*

The auxiliary steam power plant is also used for testing purposes. The plant is equipped with the necessary tanks and scales for weighing the feed-water, steam pressure gages, scales for weighing coal and ashes, draft recorders, Orsat apparatus, CO<sub>2</sub> recorder, electrical meters, thermometers, steam engine indicators, and other equipment necessary for complete power plant tests. The plant consists of four horizontal return tubular boilers, each of 1,711 square feet of heating surface. Two of these boilers are equipped for burning coal and two for burning fuel oil. There are the various auxiliary appliances, such as feed-water pumps, feed-water heater, fuel oil pumps and heaters, automatic damper regulator, and steam and oil separators. The steam line of the Mechanical Laboratory is connected to a Foxboro recording steam flow meter, while in the boiler feed-water line is located a water meter of the Buffalo make.

In the Engine Room are located four three-wire direct current generators, three of which are driven by Ridgeway reciprocating steam engines while the fourth generator is direct-connected to a Westinghouse-Parsons steam turbine.



### *Hydraulic Equipment*

The hydraulic equipment in the laboratory includes a two-stage centrifugal pump with a dual drive or separate drive as may be desired. The drive is either direct from a fifteen horsepower direct current motor or else direct from a Lee single-stage steam turbine.

A six-stage centrifugal pump direct-connected to a forty horsepower direct current motor has been installed for testing purposes. The motor, through a speed regulator, has a range in speed from 900 R.P.M. to 2200 R.P.M. The pump is rated at 180 G.P.M. against a head of 450 feet. The capacity of the pump is measured by a Venturi tube of the latest design. There is also a rotary pump driven direct by an electric motor.

Other machines for hydraulic experiments are a triplex power pump, driven by a three horsepower electric motor, a hydraulic turbine of the Pelton Wheel type, a small single-stage centrifugal pump driven directly by a  $\frac{3}{4}$ -horsepower gasoline engine, a triangular and a rectangular weir for measuring quantities of water discharged by the various pumps in the laboratory, besides the necessary tanks, platform scales, and hook gages.

### *Internal Combustion Engines*

Under the internal combustion laboratory equipment may be listed a Fairbanks-Morse ten horsepower gasoline and oil engine, so arranged that tests may be run with various kinds of fuels, and complete test data obtained; a Plymouth automobile engine arranged to run tests with different fuels and carburetors; and two gasoline airplane engines for demonstration purposes.

Several Diesel engines of various types have been installed, including a 30 H.P. high speed Fairbanks-Morse machine of the solid injection type which drives a 19 K.W., D.C. Generator, and two small engines for dismantling and demonstration purposes.

### *Refrigeration, Heating, and Air Conditioning*

The refrigeration equipment includes a  $\frac{3}{4}$ -ton Frick ammonia refrigerating machine equipped with a double pipe condenser, ammonia weighing tanks and a specially designed indicator. A Triumph compressor is also available for demonstration work. Apparatus for the determination of heat transference through various substances is available.

A constant temperature room is equipped with apparatus for either heating or cooling. Additional equipment consists of a warm air pressure system with Timken oil burner equipment and complete automatic controls, a Fedders type unit heater, and oil burning equipment and controls for demonstration purposes.

For fan testing, a multi-blade blower of Sturtevant manufacture driven by an electric motor is set up for running different tests with varying capacity.

A Carrier air conditioner, motor driven, and equipped with automatic humidity control, is arranged for testing.

### *Testing Materials and Heat Treatment Equipment*

The testing materials equipment includes a 50,000 pound Olsen Universal Testing Machine equipped for tension, compression, transverse bending, and shearing tests; a 2,000 pound automatic shot cement tester equipped with transverse tools; a 10,000 inch pound Riehle torsional testing machine; a 220 foot pound Riehle impact tester for Charpy Izod or tension tests; a White-Souther motor driven fatigue tester holding two specimens at one time; and a Ro-Tap sieve shaker with time switch and sieves for mechanical analysis of aggregate. Among the measuring instruments are Brinell and Olsen-Firth hardness testers; extensometers for tension, column, and beam tests, and a torsion meter.

For heat treatment, an electric furnace and a Stewart triple-purpose gas-fired furnace are available with pyrometers for temperature measurements.

For studying the effects of heat treatment, a large metallographic outfit of Bausch & Lomb make is used. This apparatus makes possible a magnification of from 125 to 2,600 diameters for inspection and taking photographs of crystalline structures of metals. Equipment is available for polishing and etching specimens in preparation for examination of the crystalline structure of the metal being studied.

Polaroid equipment for photo-elastic stress analysis is also available.

### *Miscellaneous Equipment*

In addition to the apparatus mentioned above, the oil testing equipment includes a Saybolt Universal viscosimeter for viscosity determination, a Cleveland open cup tester for determining the flash point and fire point of different grades of oil, a Conradson carbon residue apparatus, a steam emulsion apparatus, a water power centrifuge, a cloud and pour test apparatus, a Union oil colorimeter for color number determination, and a Thurston friction oil tester for determining the durability and lubricating properties of oils.

An Emerson fuel calorimeter is used for finding the calorific content of solid and liquid fuels, and a Junkers gas calorimeter is available for determining the heat content of gaseous fuels. For calibrating gages, two dead weight gage testers of 200 pounds and 500 pounds capacity are used for pressure gages, while for vacuum gages a water aspirator and a motor driven vacuum pump are available.

For measuring the flow of water in pipe lines, a Pitot tube, orifice, Venturi meter, and water meter are located in a pipe line for testing.



Apparatus for measuring flow of air includes a Pitot tube, an orifice, and an anemometer, besides the necessary draft gages.

Apparatus for measuring flow of steam consists of a calibrated orifice and a steam flow meter. A recording steam pressure gage is also available.

An experiment on "Friction of Drives" includes apparatus consisting of three pulleys of different materials with three different kinds of belts, which make possible nine tests with various combinations.

A motor-driven vacuum pump with a rated capacity of six cubic feet of free air per minute under  $29\frac{1}{2}$  inches of mercury vacuum is available for tests.

Included among the measuring instruments are five steam engine indicators, two internal combustion engine indicators, four hand tachometers (centrifugal type) with three speed ranges from 0 to 4000 R.P.M., one tachograph, one tachoscope, one rotoscope for speed and vibration determinations, one recording thermometer, planimeters, revolution counters, thermometers, pressure gages, and a portable strobosc.

#### *Machine Shop*

Adjoining the laboratory is a machine shop, used for maintenance purposes and for thesis work. The machines available are a sixteen-inch motor-driven South Bend engine lathe, two belt-driven engine lathes, a vertical drill press, a small vertical drill, a horizontal milling machine, a shaper, a power hack saw, a motor driven double emery wheel, an arbor press, two nine-inch South Bend Workshop lathes, an Eisler spot welding machine, a 200 ampere Lincoln arc welding outfit, and an Oxweld acetylene welding outfit. There are also an anvil and a small hand forge for forging purposes.

#### *Electrical Engineering Laboratories*

The basement of the South Building is given over to electrical laboratories which are of three types: the dynamo laboratory, the measurements laboratory, and the high tension laboratory.

##### *Dynamo Laboratory*

This laboratory is equipped with sixty generators and motors of different types, the size and voltage ratings being selected to reduce as much as possible the risk from high voltage apparatus while making available to the student commercial apparatus such that the various quantities it is desired to measure will be of reasonable dimensions.

Machines from five to twenty-five kilowatt capacity are used principally for this reason, but also because the student in his engineering practice early comes in contact with large and varied machinery in power houses and electrical plants.

### *D. C. Machinery*

For D. C. working there are two sets of individually driven specially matched direct current six-kilowatt, 125-volt compound generators, which will work as shunt machines. A large 230-volt, 12 H.P., 200 R.P.M. Sturtevant motor is used for retardation tests, and an assortment of series, shunt and compound motors each fitted with brake pulleys, are used for routine motor testing.

### *A. C. Machinery*

For A. C. working there is a fifteen-kilowatt (unity p.f.) three-phase, 240-volt alternator driven at sixty cycles, and a 7.5 kilowatt G.E. machine with special armature taps so that it may be used as a single-phase, two-phase, three-phase, or six-phase synchronous motor.

There are also two 12.5 kilowatt (eighty per cent, p.f.) G. E. machines having each armature coil tapped out separately and giving various phase arrangements; a five-kilowatt Holtzer Cabot machine with three rotors, making it available as either a squirrel cage, wound rotor, or synchronous machine; a G. E. single-phase clutch motor, a type R. I. induction motor, a Wagner single-phase motor; two Wagner motors arranged for concatenation control, one five-kilowatt Holtzer three-phase synchronous converter, a Westinghouse 7.5-kilowatt two-phase motor, a ten horsepower Fynn-Weichsel Unity power factor motor, and a Westinghouse Synchronous Converter (10 kilowatt, 240 D. C. volts; one, three, and six phase; sixty cycles).

Recently installed in this laboratory is a General Electric Electrodynamometer of 15 horse-power capacity, 2000 to 4000 R.P.M., direct connected on one end to a 10 horsepower, 3 phase, wound rotor induction motor. By means of external resistance control this motor may have its speed reduced to 50% of its rated value and still carry its rated torque. The shaft extension on the other side of the dynamometer can be used for testing other electrical equipment of appropriate size, such as D.C. motors, single phase machinery, etc. A starting panel, including latest types of automatic control equipment, has been installed with the electro-dynamometer.

### *Auxiliary Equipment*

For transformers there are six single-phase G. E. type H units wound for 550 volts and 220-110 volts; a set of transformers with Scott connection taps, and a Type R.O. constant current transformer, primary winding for 220-190 volts and secondary for 6.6 amperes, 310 volts maximum fitted with a load of eighty candle power 6.6-amperes, sixty-watt nitrogen filled tungsten lamps, and a pair of 550-220 110 volts G. E. three-phase transformers of 5-kva capacity. There is also a full equipment of necessary control

and regulating appliances and twelve movable test tables fitted with the necessary terminals, switches, circuit breakers, etc., for setting up the various combinations required from time to time. Each student when performing an experiment does the complete wiring, no apparatus in the laboratory being permanently wired up except as to its normal, self-contained circuits.

Power is supplied over a special set of feeders, from the Boston Edison system. Two power circuits are available: one of 50 K.W. capacity supplying 60 cycle, three phase, alternating current at 230 volts and the other providing 115-230 volt three wire direct current. For lowering the voltage in transformer testing G. E. induction regulators are used.

There are also speed governors and Tirrel regulators, both A.C. and D.C., capable of being used with any special machines found desirable at any particular time. An Edgerton Stroboscope and a two element G. E. Oscillograph with camera attachments have recently been added to the laboratory equipment.

#### *High Tension Laboratory*

For high tension work there have been installed a pair of General Electric transformers of 4 kva. capacity giving 50 kilovolts. A special room in the laboratory has been equipped for cable and insulation testing. The auxiliary equipment includes the necessary sphere gaps, induction regulators, calibrated voltmeters, etc., the transformers being supplied from a special motor-driven generator. The set has been supplied with the necessary kenotron tubes and controls for the rectification of the high potential alternating current for direct current working.

A 4000 ampere, low voltage transformer with regulator for current control is available for the study of the effects of heavy currents in conductors, switches, and contacts.

#### *Electrical Measurements Laboratory*

This laboratory is equipped with apparatus of two distinct types: first, that planned fundamentally for teaching the principles of measurements and, second, that which is used in teaching advanced standardizing methods as well as for keeping the instruments in daily use in the other laboratories properly calibrated.

It is supplied with a set of small storage cells for calibration work and a set of twelve 500-ampere-hour cells for current work.

The apparatus utilized in the first type of work includes the customary devices used for resistance, potential, energy, and magnetic measurements such as slide wire and Wheatstone bridges, Poggendorf's E.M.F. comparison, D. C. watt hour meter calibrations, magnetic comparator, etc.

The second type of work uses the following Leeds and Northrup equipment: Precision Kelvin Double, Carey Foster, and Wheat-



stone Bridges; two type K potentiometers with auxiliary apparatus of volt boxes, standard cells, standard shunts of 10 and 100 ampere capacity, a set of resistance standards of the N.B.S. type and another of the Riechsanstalt patterns, a complete set of Inductance and Capacity Standards. For secondary standards of voltage and current the laboratory is equipped with Weston Electrical Instrument Corporation instruments with the necessary transformers.

Other equipment includes a Westinghouse three element oscillograph with full equipment, including a variable 1000 ampere standard shunt, fast and slow film holders; a phase shifter, G. E. rotating standard, and numerous types of A.C. watt hour meters. In the field of electronics and communication the following General Radio equipment is used: audio frequency meter; precision wave meter; low frequency oscillator (25-70,000 cycles); intermediate frequency oscillator; capacity, inductance, universal, radio frequency, and vacuum tube bridges; two electron oscillographs with Bedell sweep circuits with special auxiliary equipment; Edgerton Stroboscope; and a variety of wave filters of the low, high, and band pass types. The laboratory is equipped with a Leeds and Northrup Vreeland oscillator; G. E. vacuum tube voltmeter; "Comet-Pro" superheterodyne receiver for radio frequency bridge balancing.

Several recent additions are a General Radio standard signal generator, type 605A, having carrier frequency range from 9.5 kilocycles to 50 megacycles, with continuously adjustable voltage output from .5 microvolt to .1 volt, and capable of being modulated by a 400 cycle signal from 0 to 50%; a General Radio heat frequency oscillator, type 713A, variable to one cycle within a range of from 10 to 20,000 cycles; a Western Electric transmission measuring set; and two 600 A condenser microphones, with amplifier and auxiliary equipment for sound measurements.

The following equipment has been constructed by the department: an attenuator; A.C. and D.C. artificial telephone line; beat frequency oscillator; multi element electrically driven contactor for use with cathode ray oscillograph; magnetostriction and Quartz crystal oscillators; multi vibrator and numerous amplifiers, power packs, oscillators, vacuum tube voltmeters, etc.

Briefly, the laboratory is equipped for practically any work in electrical measurements outside of the absolute determinations as carried on in national standardizing laboratories.

### *Instrument Room*

The Instrument Room is supplied with 76 high grade General Electric Company and Weston Electric Instrument Corporation alternating current voltmeters and ammeters, with a number of potential and current transformers, and with three polyphase and

sixteen single-phase indicating wattmeters, each of double current and double voltage ranges.

For direct current working there are 61 voltmeters (of triple range), ammeters and millivoltmeters of the above makes. There are twenty-five standard shunts of ranges from 10 to 100 amperes with uniform drops of fifty millivolts to go with the millivoltmeters.

There is also a large and varied assortment of auxiliary equipment such as sliding rheostats for circuit control, non-inductive loading resistance, air core loading reactances, frequency indicators, power factor indicators, etc.

The department also has a small shop for maintenance purposes, a dark room, and several well appointed research areas for the use of staff members and for seniors engaged in thesis work.

### *Chemical Engineering Laboratories*

The Chemical Engineering Department has under its supervision the *Chemical Engineering Laboratory* which is primarily devoted to equipment for studying the various unit operations and the *Industrial Chemical Laboratory* which houses equipment suitable for investigating manufacturing processes and testing industrial chemical products.

#### *Chemical Engineering Laboratory*

*Flow of Fluids.*—Extensive equipment is available for the study of characteristics of the flow of gases and liquids. The orifice, Venturi meter, Pitot tube, anenometer, Thomas meter, gas meter, rotameter, slot weir, draft gage, and multiplying gage, are typical of the equipment used in determining the rate of flow. Special fluid systems have been designed and constructed for studying the type of flow and friction.

*Heat Transfer.*—Condensers, double pipe heat exchangers, steam-jacketed kettles, insulation testing equipment, the gas furnace, and pyrometers serve to make clear the principles of heat flow.

*Distillation.*—For the study of batch and continuous distillation a forty-eight gallon still provided with a fifteen-plate bubbler cap column, condenser, and tanks, is available. This unit can be operated under partial vacuum if desired. When operated as a continuous still, a preheater for the feed is used. The apparatus is designed so that samples can be easily taken at various points in the system.



*Evaporation.*—Studies are made of the effect of vacuum on the boiling point of various solutions. A steam-jacketed kettle is available for determining the rate of heat transfer from steam to boiling solutions.

*Absorption.*—A bubble cap column and small packed columns make possible studies concerning the fundamentals of liquid-vapor reactions.

*Drying and Air Conditioning.*—A Carrier processing cabinet equipped with automatic temperature and humidity control enables the student to determine the effect of temperature and humidity, and air velocity on the rate of drying. The drying characteristics of some substances are noted by running tests on a Stokes vacuum shelf dryer and on steam heated drying rolls. The Carrier processing cabinet is also available for observing the effect of temperature and humidity on various industrial products.

*Filtration.*—The present equipment consists of a Shriver 6-inch plate and frame press, a Sweetland pressure filter, a rotary vacuum filter and special high pressure oil filtration equipment.

*Separation.*—Mechanical separation is studied by means of a Rotex screen, a Federal air classifier, a Fletcher centrifuge, and specially constructed hydraulic classifying equipment.

*Crushing and Grinding.*—A jaw crusher, a ball mill, Sturtevant crushing rolls, and a Rotap sieve shaker complete the equipment for the study of crushing and grinding.

*General Equipment.*—In addition to special equipment noted, the laboratory is equipped with tanks, blowers, steam traps, mixers, scales, pumps, and other accessories necessary to supplement the above equipment and to build special units.

### *Industrial Chemistry Laboratory*

This laboratory is used mostly for process development and research. It is equipped with high pressure steam, compressed air, vacuum, and other facilities usually found in a chemical laboratory. Some of the equipment available for use in this laboratory are a Premier Colloid mill, a Freas electric oven, a high temperature gas oven operated by a centrifugal blower, a Vorce chlorine cell, a Carver electrically heated hydraulic press, a Holtzer Cabot 10 volt-200 ampere motor generator unit, and a Hobart mixer. A variety of industrial chemicals and small apparatus are kept on hand for use in trying out old and developing new industrial processes.

### *Industrial Engineering Equipment and Laboratories*

Students in the Department of Industrial Engineering share in the use of the Mechanical Engineering Laboratories, and, in addition, have available for laboratory work in accounting and statistical methods all of the commonly used office machines. These are in a special room together with necessary library services, including Moody's Manuals, Poor's Manuals, and various charts and maps.

The laboratory is in charge of an assistant instructor whose work is to maintain the equipment in excellent condition and to give instruction in the use of the various office machines.

Principal pieces of equipment in the laboratory include duplicators, typewriters, hand and electric calculators, and both hand and electric adding machines.

For Methods Engineering (motion and time study work) the Department has a laboratory devoted exclusively to this work. The laboratory is completely equipped with the latest facilities and tools used by methods engineers.

The general equipment of the laboratory consists of stationary work benches, equipped for building jigs, fixtures, etc., including a bench lathe and lathe tools; two special combination work and projection tables; a camera table with an elevator top; three small projector tables; two Therblig drawing tables; a circular work bench fitted with trays, clock rack, interchangeable work areas, and a drop delivery chute; a special measuring table; three Sit-Rite chairs; and complete sets of economist assembly racks of various sizes.

For time study work the laboratory has numerous time study boards, decimal stop watches, hour decimal watches and split second timers.

For micromotion work, the laboratory has complete motion picture equipment including camera with special lenses, tripod, special lighting equipment, photometer, splicer, film viewer, etc., together with projectors, hooded screens, and a large wall screen. These are used in conjunction with a Telechron microchronometer and a special microchronometer with interchangeable dials.

To illustrate lectures in the laboratory there are numerous special charts, diagrams, and other instructional material.

### *Chemistry Laboratories and Equipment*

#### *The Hayden Memorial Laboratories*

The Chemical Laboratories, located on the fourth floor of the West Building and embodying the most recent developments in materials and design, were given to the University by the Charles Hayden Memorial Fund. The laboratories are adequately equipped for undergraduate instruction in the major branches of

chemistry and consist of the following units: (1) General Chemistry and Qualitative Analysis Laboratory, (2) Organic Chemistry Laboratory, (3) Quantitative Analysis and Physical Chemistry Laboratory, (4) Research Laboratories, (5) Dark Room for Photography, and (6) Service Rooms.

#### *General Chemistry and Qualitative Analysis Laboratory*

This large and well-lighted laboratory is fully equipped for giving instruction in these undergraduate courses. A hydrogen sulfide room, a well-equipped balance room, a coat closet, and a conference room are a part of this unit.

The laboratory tables are made of light oak and have alberene stone tops. The usual services including water, gas, A.C. and D.C. electricity, and steam are available to the students. The large and well-illuminated fume hoods are of the open front construction type with a special built-in drying cabinet in the base. This cabinet is so constructed that a draft of filtered air is drawn in through screened holes at the base and then passes into the fume exhaust. The hoods are supplied with water, gas, steam, steam cones, 110 V. A.C., 115-230 V. D.C., and also variable D.C. supplied by a battery system.

#### *Organic Chemistry Laboratory*

This laboratory is adequately equipped for undergraduate courses in preparation of organic compounds and qualitative organic analysis. The laboratory furniture is made of light oak with alberene stone tops and so arranged that each student has a working space of about six feet. A sink and steam cone are available for each student as well as water, steam, gas, and electricity.

Eight large fume hoods, made of Sheldine stone with leadclad steel bases, enable the student to work in a clean atmosphere. The hoods are well illuminated and contain the same services as the assigned table units. The bases of the hoods serve as drying cabinets and are well insulated to make working conditions at the hood more comfortable.

A large evaporator unit made of alberene stone with ceramic baths, stainless steel tops, and concentric rings facilitates evaporation operations. Provision is made for twenty-seven simultaneous evaporations, arranged in three tiers of nine units. The source of heat is steam. A special overhead glass plate provides for the draining away of overhead condensate to prevent contamination of the solutions being evaporated.

A multiple-unit organic combustion furnace, an ice storage chamber, an ice-crusher, cork presses, a Fisher micro-melting point apparatus, a saccharimeter, and other accessories needed in these courses are available.



*Quantitative Analysis and Physical Chemistry Laboratory*

The laboratory tables and fume hoods are similar to those in the Organic Chemistry Laboratory. Abundant drying cabinet space is available in the hood bases. A large evaporator unit, similar to that in the Organic Chemistry Laboratory, and a sand bath built into one of the hoods provide ample space for evaporations. A large Freas drying oven is available for the drying of analytical samples. The balance room is of modern design and well illuminated by indirect lighting.

A small laboratory, adjacent to the Quantitative Analysis Laboratory, is used for technical analyses such as the determinations of coals, vegetable oils, lubricating oils, gasolines, dairy products, textiles, rubber, and other industrial materials.

Some of the equipment available for this type of work includes the following: a standard A.S.T.M. gasoline distillation apparatus, a closed cup and an open cup flash and fire point apparatus, a Conradson carbon residue apparatus, a muffle furnace, an Abbe refractometer, a three objective B. & L. microscope with an oil-immersion objective, a Kjeldahl distillation outfit, a combustion furnace for iron and steel determinations, rheostats, voltmeters, ammeters, etc. This technical analysis laboratory has a fume hood and several working tables with all the necessary services such as water, gas, steam, vacuum, 110 V. A.C., 115-230 V. D.C., and several variable D.C. circuits supplied from a series of batteries through a distribution panel.

A special laboratory is available for electrolytic work such as potentiometric determinations, electrometric titrations, electrolytic analyses of metals, etc. For this work the equipment includes two L. and N. student potentiometers, a Wilkens-Anderson electrolytic machine, and all the accessories necessary.

The electric current distribution panel, specially designed at the University and constructed by the Holtzer-Cabot Company, is located in this electrolytic laboratory. The current available for distribution at this panel is variable D.C. (2-32 V.) and 115-230 V. D.C. A built-in tungar charger enables the batteries to be kept fully charged at all times. The battery system is located in a separate battery room adjacent to the electrolytic laboratory.

The Physical Chemistry Laboratory contains working benches equipped with water, gas, and electricity. A special table containing a thermostat and having D.C. and A.C. connections is used for experiments requiring these services. Apparatus is available for performing experiments on the properties of gases and liquids, thermochemical measurements, and conductivity of solutions. A supply of electrical instruments and special thermometers enables a wide range of special tests to be made as directed.

### *Research Laboratories*

The Chemistry Department has three research laboratories equipped with A.C. and D.C., water, gas, and steam. In one laboratory work can be done on the electrical properties of solutions, solubility effect, and other physical chemistry phenomena. Another laboratory is equipped for work in organic chemistry, and the third can be used for research in analytical or physical chemistry. Electrical instruments and glass apparatus of various types are available for use in the laboratories.

### *Dark Room Equipment*

The photographic dark room is equipped with all the common accessories necessary in photography. A copying camera is available and is especially useful in the making of lantern slides for instructional purposes. An Ellwood enlarger taking a negative as large as 5 x 7 inches, siphon print washers, and several safe lights with interchangeable green, amber, and red filters are available. The room is equipped with gas, electricity, water and distilled water. A large light-proof fan gives adequate ventilation.

### *Service Rooms*

The service rooms consist of the following units: (1) the stock room supplying the main laboratories; (2) storage rooms on the fourth floor for the operating supply of chemicals and apparatus; (3) storage rooms in the basement for the main supply of chemicals and apparatus; (4) solution room; and (5) preparation rooms adjacent to all main lecture rooms.

The stock room is centrally located to feed all the main laboratories. The wall tables, adjacent to the service windows leading into each laboratory, are stocked with the materials necessary for the servicing of those laboratories. The still, for the making of distilled water, and a large storage tank are located in the stock room. The water is piped from this tank into the various laboratories, solution room, and dark room. The distilled water outlets are tin-lined, self-closing bibcocks. Aluminum piping is used throughout.

A storage room for alcohol and inflammable solvents, a storage room for chemicals, and a storage room for apparatus maintain an adequate supply of materials for this stock room. These storage rooms are all connected to the stock room.

The solution room is fully equipped with a laboratory table, a hood, and all the necessary services including distilled water. There is ample shelf room for maintaining a complete supply of chemicals necessary for the preparation of solutions needed in the various laboratory courses.



The two large and well-ventilated storage rooms in the basement are used for storing the main bulk of chemical and apparatus supplies. A freight elevator makes these rooms readily available to the stock room on the fourth floor.

The preparation rooms adjoining lecture halls are equipped with working tables, hoods, and steel storage cabinets. All materials necessary for setting up of lecture demonstrations are stored in these rooms. Tables mounted on wheels are used for carrying the set-up demonstrations into the lecture room.

### *Biological Laboratory*

The Biological Laboratory, a large, well-lighted room containing six dissecting tables, can accommodate thirty-six students.

General equipment includes simple and compound microscopes, binocular dissecting microscopes, microscopical stains, staining solutions, physiological preparations, reagents, chemicals, and glassware.

The zoological collection is especially good. It includes a complete series of invertebrate and vertebrate specimens for dissection and also various demonstration specimens. Among these are complete series of sponges, corals, flat worms, round worms, echinoderms, annelids, mollusks, arthropods, insects, and chordates; a set to demonstrate the general survey of the animal kingdom; a series of heart models of different types of vertebrates and human hearts; a series of brain models of the most important vertebrate groups; a set of models to demonstrate the various cell types from human tissues; a set of models to demonstrate the principal steps in somatic mitosis; various other models of invertebrates and vertebrates; zoological dissections in museum jars; skeletal preparations of the most important vertebrate groups; and a complete series of Leuckhart zoological charts.

The histological collection consists of some four hundred mounted microscopical specimens illustrating various forms of invertebrate, vertebrate, and plant tissues, while the botanical collection includes a complete series of both preserved and mounted botanical specimens.

### *Physics Laboratories*

#### *General Laboratory*

The General Laboratory is fully equipped with large working tables, each provided with gas, alternating current, and direct current. Some also have water supplies for such experiments as require a constant flow. A separate balance room, a spectrometer room, a photographic room, and a photometer room are directly connected with this laboratory. A large amount of apparatus for all of the usual physics experiments is available so

that the students may work alone thus gaining confidence in laboratory technique. The students work in groups only when the experiment requires more than one person for its proper operation.

### *Advanced Laboratory*

This laboratory is designed with a view both to precision and flexibility. A special switchboard provides single phase and polyphase alternating current and a variety of direct current potentials to be fed around to various working points. Two separate research rooms and a workshop with lathe, drill press, grinder, and a full set of tools complement the laboratory. Typical of the equipment available are a General Radio impedance bridge, high frequency bridge, wave analyzer, cathode ray oscillograph, and vacuum tube voltmeter, together with standards of resistance, inductance, and capacity manufactured by the same company. A communications type radio receiver, and a large number of meters, amplifiers, discharge tubes, and vacuum tubes are available for electrical work.

In the field of light there are spectrometers, photometers, photocells, a Zeiss ECE330 microscope, polarizing equipment, projectors, etc. A Central Scientific cathetometer measuring to 0.05 mm. over a 97 cm. length is used for precision measurement of large objects. Vacuum pumps, blower, and large amounts of auxiliary apparatus give a well rounded set of equipment for the Advanced Laboratory courses and for research.

### *Astronomy Laboratory*

This laboratory is in the penthouse of the West Building close to a platform on the roof which gives a very good view free from obstructions. Equipment is available for the grinding of mirrors and the constructing of telescopes, and students are encouraged to build their own instruments. The Astronomy Club holds evening meetings in the laboratory regularly throughout the college year. The Club has made a good start in building up a library in its special field for the use of its membership.

### *Radio Laboratory*

This is also in the penthouse of the West Building and is a completely shielded room high up from the street. Three masts support three horizontal antennae and a vertical ultra high frequency doublet. The transmitters operate on both radiotelephone and radiotelegraph as permitted in the amateur bands by the Federal Communications Commission. The maximum allowable power is available on all bands except the ultra high frequency ones. Full controls and safety devices make the operation

simple and without hazard to the operators. Facilities are provided for research. The Radio Club uses this laboratory and supplies most of the operators.

### *Visual Education Equipment*

Classroom instruction is frequently made more effective by the use of motion pictures and lantern slides. For this purpose, there are available moving picture projectors for both sound and silent films, and several lantern slide projectors, with lenses suitable for use in the various lecture halls. Day-light screens eliminate the necessity of totally darkening the room, thereby enabling students to take notes while viewing the pictures.

## *Student Activities*

NORTHEASTERN University regards student activities as an integral part of its educational program. One of the main departments of the University is charged with the responsibility of co-ordinating the various types of activities and of administering the social, musical, literary, and athletic organizations in such a way as to enable each to contribute in a wholesome, worth while manner to student life at Northeastern. Every student is encouraged to participate in such activities as may appeal to him, although a standard of scholarship which is incompatible with *excessive* devotion to such pursuits is required of all students.

Members of the faculty also are interested in the informal aspects of the college program. Teaching loads are kept sufficiently low so that the instructional staff may have ample opportunity to mingle with students outside of the classroom in social activities and on the athletic field. In fact some member of the faculty is appointed to serve as adviser for each student activity. His function is not to dictate how the organization shall be run, but to encourage the students in their extra-curricula endeavors and to give them the benefit of his mature point of view in solving the problems that inevitably arise.

One of the outstanding contributions of the co-operative plan in the field of higher education has been its capacity to develop in students those powers of social understanding that are so essential to success in professional life. At Northeastern the program of student activities is made to contribute to this end in a very real way. It is a conscious aim of the student activities advisers to develop among their advisees those qualities of personality and character which will enhance their usefulness as future professional men and citizens. Students have splendid opportunities to develop administrative and executive ability as leaders of undergraduate organizations. No academic credit is awarded for any student activity. This has been no deterrent, however, to student participation in extra-curricula activities for a recent survey of the undergraduate body showed that over 90% of the enrollment were engaged in one or more forms of student activity.

### *Athletic Association*

All students in the Day Division are members of the Northeastern University Athletic Association. Policies of the association are passed upon by a Faculty Committee on Student Activities appointed by the vice-president in charge of the Day Division. This committee decides what students are eligible to



participate in athletics, what the various sports schedules shall be, and what students may be excused from classes to represent the University on athletic trips.

The actual administration of the athletic program is in the hands of a second committee, known as the General Athletic Committee, which consists of the Director of Student Activities, the captains and managers of all varsity teams, and the coaches as ex officio members.

The University maintains both varsity and freshman teams in basketball, baseball, football, hockey, and track. Intercollegiate games and meets are arranged with the leading colleges in the East. In addition to intercollegiate athletics the athletic association conducts an intramural program in various sports.

### *Tennis Club*

The Northeastern University Tennis Club is open to all undergraduates. The Department of Student Activities appoints a faculty adviser who assists the members in conducting an intramural tennis tournament. Excellent facilities for tennis are afforded on the courts adjacent to the East Building of the University. In the early spring members of the Tennis Club have access to the gymnasium for indoor practice.

### *Mass Meeting*

The hour from 12:00 to 1:00 on Wednesdays throughout the year is set aside for mass meetings. Attendance is compulsory. Arrangements are made to bring before the student body some of the ablest and foremost thinkers of the day. A list of speakers for the year will be found on page 15 of this catalogue. When the mass meeting hour is not occupied by a University lecturer, class meetings, concerts, or athletic rallies are held instead. Such gatherings are under the direction of the Department of Student Activities.

### *"The News"*

A college newspaper called the "Northeastern News" is published each week throughout the college year by a staff selected from the student body. The copy is prepared, edited, and published by the students themselves with the counsel of a faculty adviser. Opportunity is afforded for the students to express their opinions on subjects relating to study, co-operative work, social events, or topics of the day. Positions on the News staff and promotions are attained by competitive work. The paper is in part supported by advertising, both national and local, and in



part by a portion of the student activities fee. The Northeastern News is a member of the Eastern Intercollegiate Newspaper Association, and sends one of its editors to the annual convention of this association each year. Copies of the News are mailed to upperclassmen when they are at co-operative work, and to freshmen after the close of their college year.

### *"The Cauldron"*

The senior class publishes annually a college year book, "The Cauldron." It is ready for distribution in the latter part of the second semester and contains a complete review of the college year with class histories, pictures of all seniors, of the faculty, and of undergraduate groups, as well as a miscellany of snapshots and drawings contributed by students.

### *The Handbook*

Each fall the Northeastern Student Union issues a conveniently sized student Handbook which is sold to students at a nominal price. The book contains information about the various college clubs, athletic programs, fraternities, rules governing freshmen, lockers, publications, and so on. The Handbook also includes a diary for the college year in which it is issued.

### *Student Council*

Student government at Northeastern University is vested in the Student Council, composed of elected representatives from the various classes. The Council is the authority on all matters relating to student policies not definitely connected with classroom procedure. It has jurisdiction, subject to faculty approval, over all such matters as customs, privileges, campus regulations, etc. and meets regularly to consider and act upon issues referred to it for decision. The Dean of Students serves as faculty adviser to the Student Council.

### *The Senate*

The Senate of Northeastern University is the Engineering honorary society.

Election to the honorary fraternity is founded primarily upon scholarship, but before a man is privileged to wear the honorary society insignia he must display an integrity of character and an interest in the extra-curricula life of the University as well as an acceptable personality. The Society has a membership consisting of the outstanding men in the College of Engineering. Election to the honorary society is the highest honor that can be conferred upon an undergraduate.

### *Fraternities*

There are at present ten local Greek letter fraternities chartered by Northeastern University. Each fraternity is provided with a faculty adviser who is responsible for the proper administration of the fraternity house under the rules and regulations established by the faculty. The list of fraternities in the order of their establishment is as follows:

- |                       |                     |
|-----------------------|---------------------|
| 1. Alpha Kappa Sigma  | 6. Phi Beta Alpha   |
| 2. Beta Gamma Epsilon | 7. Phi Gamma Pi     |
| 3. Eta Tau Nu         | 8. Sigma Phi Alpha  |
| 4. Nu Epsilon Zeta    | 9. Kappa Zeta Phi   |
| 5. Sigma Kappa Psi    | 10. Gamma Phi Kappa |

Elected representatives from each fraternity make up an Inter-Fraternity Council, a body which has preliminary jurisdiction over fraternity regulations. Its rulings are subject to the approval of the Faculty Committee on Student Activities.

### *Professional Societies and Clubs*

To assist in the promotion of social, cultural, and intellectual advancement through informal channels, a number of professional societies and clubs are sponsored.

#### *National Engineering Societies*

Students in the several professional curricula of the College of Engineering operate Northeastern University Sections of the appropriate national engineering societies. Chief among these are the following:

- American Society of Mechanical Engineers
- Boston Society of Civil Engineers
- American Institute of Chemical Engineers
- American Society for the Advancement of Management
- American Institute of Electrical Engineers

Members of the engineering faculty who hold membership in the parent organizations serve as advisers to these student groups. Meetings are held regularly, usually at night so that students from both Divisions may attend, and practicing engineers are invited to address the Section. Occasionally appropriate motion pictures are shown, or the group visits some current engineering project in the vicinity of Boston. The College of Engineering encourages these student sections of the technical societies in the belief that they provide a wholesome medium for social intercourse as well as a worth while introduction to professional life.

### *Affiliated Engineering Societies of New England*

Membership in the student sections of the Boston Society of Civil Engineers, the American Society of Mechanical Engineers, or the American Institute of Electrical Engineers also includes membership and privileges of the Affiliated Engineering Societies of New England. This organization is an affiliation of all the major technical societies of Boston and vicinity and provides very valuable lectures, smokers, and informal meetings with the outstanding men engaged in engineering work in Boston and vicinity.

### *International Relations Club*

The International Relations Club was founded in 1932 for the purpose of studying and discussing those current national and international events and issues which vitally concern our American life and institutions.

It is the intention of the club to deal with all questions in an impartial and broadminded manner, and to take an intelligent and effective part in promoting international understanding and harmony. The club maintains contacts with similar organizations in other colleges.

Membership is not open to freshmen, and only to those upper-classmen who maintain good scholarship.

### *Astronomy Club*

Membership in the Astronomy Club is open to all students in the College of Engineering who maintain satisfactory scholastic standing. The club has access to machine shops for the construction of telescopes and other instruments. It also has quarters in the penthouse on the fifth floor of the West Building. Meetings are held twice a month for the purpose of making astronomical observations and for carrying on appropriate discussions.

### *Radio Club*

One of the most popular undergraduate activities is the Northeastern University Radio Club. Members are provided opportunity for code practice and are encouraged to obtain their amateur licenses. The Club owns and operates station W1KBN, a short wave transmitter, located in the Radio Laboratory in the penthouse of the West Building. Meetings are held about once a month for the discussion of technical matters. Practicing radio engineers are frequently invited to address the Club at evening meetings when students in both divisions may attend.

### *Rifle Club*

Organized a number of years ago, the Rifle Club was so successful that in 1933 riflery was recognized as a minor sport. Members of the club are given instruction in the art of rifle shooting and

those students who excel in intra-mural competition are selected for the team representing the University in intercollegiate contests. Practice sessions are held twice a week in the University rifle range. Membership is open to all students.

### *Musical Clubs*

The Department of Student Activities sponsors the following musical clubs: an orchestra, a band, a glee club, a banjo club, and a dance orchestra, for which all students with musical ability are eligible. Membership in the various musical clubs is attained by competitive effort.

Each organization has a faculty adviser and each elects a representative to the Musical Clubs Council. The purpose of this council is to co-ordinate the various musical activities of the Day Division. At the annual Musical Clubs Banquet, held early in the spring, charms are awarded to the leaders and managers of the several clubs and to members who have played over a period of three full years.

The various musical clubs, in conjunction with the Dramatic Club, combine in an annual mid-winter entertainment and participate in occasional outside public engagements throughout the college year.

### *Class Organization and Activity*

Each of the Classes in the Day Division elects its officers and carries on activities as a class. Dances are sponsored by the classes at regular periods throughout the year. One of the high lights of the social program is the Junior Promenade, held each spring at one of the Boston hotels.

Seniors plan a whole week of activities just prior to Commencement in June.

Freshmen are required to wear the red and black necktie distributed through the Department of Student Activities in order that they may be readily distinguishable to each other and to upperclassmen.

### *The Northeastern Student Union*

The purpose of the Northeastern Student Union is to carry out the work of a Christian Association within the University. It endeavors to deepen the spiritual lives of Northeastern men through the building of Christian character, to create and promote a strong and effective Northeastern University spirit in and through a unified student body, to promote sociability, and to emphasize certain ethical, social, civic, intellectual, economic, physical, vocational, and avocational values.



All students are encouraged to participate in the activities of the Union, no matter what their religious faith, as the work of the Union is entirely non-sectarian. A good moral character is the only requirement for eligibility to membership. It is hoped that as many students as can will participate in this ideal extra curricula work.

The Union conducts a weekly Chapel Service in the little chapel in the West Building, to which all Faculty members and students are invited. The service, which is non-sectarian and voluntary, is held on Thursday mornings from 8:40 to 8:55 o'clock. Many eminent preachers of Greater Boston are engaged to deliver brief addresses.

### *Alumni Association*

The alumni of the Day Division are organized to promote the welfare of Northeastern University, to establish a mutually beneficial relationship between the University and its alumni, and to perpetuate the spirit of fellowship among members of the Alumni Association.

Among the events sponsored by the Alumni Association are the annual meeting and reunion; the annual alumni-varsity basketball game; and class reunions. The Association also awards a track trophy each year and contributes to the Alumni Student Loan Fund.

The work of the General Alumni Association is supplemented by the activities of regional alumni clubs. The local clubs meet periodically in their respective centers to discuss matters pertaining to the University and its alumni. Meetings are also held in conjunction with the visits of Northeastern's athletic teams to the various club centers.



## *Officers of the Alumni Association*

### *President*

HENRY C. JONES, JR.

### *Vice-President*

LINDSAY ELLMS

### *Secretary*

GEORGE A. MALLION

### *Treasurer*

WILLIS P. BURBANK

### *Executive Committee*

CRAWFORD A. GLEN

MAX P. STANDKE

JOHN W. GREENLEAF

RAYMOND D. TELLIER

RICHARD MARSHALL

EARL H. THOMSON

### *Faculty Representative*

G. RAYMOND FENNELL

### *Alumni Executive Secretary*

RUDOLF O. OBERG

### *Alumni Council Representatives*

1913-1920 ERVING H. CLOUGH

1929—S. WHITNEY BRADLEY

JOHN S. LEIGHTON

ELIOT W. HOWARD

JOHN R. MCLEISH

1930—DEXTER W. LOVELL

1921—MARTIN BROWN

ALEXANDER G. MACGREGOR

1922—RICHARD B. BROWN

1931—HARRY A. GILL

1923—JOSEPH E. JOHNSON

1932—SIDNEY A. STANDING

1924—FARNHAM W. SMITH

1934—J. LLOYD HAYDEN

1925—JAMES W. DANIELS

1935—HARTWELL G. HOWE

1926—EARL L. MOULTON

1936—FREDERIC S. BACON, JR.

1927—WILLIAM J. URQUHART

1937—JOHN F. SHEA

1928—WILLIAM E. R. SULLIVAN

1938—CHESLEY F. GARLAND

## Admission Requirements

**A** PPLICANTS for admission to the freshman class without restrictions must qualify by one of the following methods:

1. Graduation from an approved course of study in an accredited secondary school, including prescribed subjects listed below.

2. Completion of fifteen acceptable secondary school units with a degree of proficiency satisfactory to the Department of Admissions.

3. Examinations.

(Certificate of entrance examinations passed for admission to recognized colleges and technical schools may be accepted.)

### *Prescribed Subjects for Admission*

Mathematics	3 units
**Physics or Chemistry	1 unit
History and/or Social Studies	2 units
English	3 units
*Electives	6 units
Total	15 units

A unit is a credit given to an acceptable secondary school course which meets at least four times a week for periods of not less than forty minutes each throughout the school year.

Entrance examinations are not required of students whose transcripts of record are acceptable, but the Committee on Admission reserves the right to require a candidate to present himself for examination in any subjects that it may deem necessary because of some weakness in his secondary school record.

### *Other Requirements*

These formal requirements are necessary and desirable in that they tend to provide all entering students with a common ground upon which the first year of the college curriculum can be based. But academic credits alone are not an adequate indication of a student's ability to profit by a college education. Consequently the Department of Admissions takes into consideration, along with the formal requirements stated above, many other factors regarding candidates for the freshman class. A student's interests and aptitudes in so far as they can be determined, his capacity for

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\*Not less than four of the "electives" must be in one or more of the following academic branches: Languages, Natural Science, Mathematics, Social Sciences, History.

\*\*Physics is recommended.

hard work, his attitude toward his classmates and teachers in high school, his physical stamina, and most important of all — his character, all these considerations are carefully weighed. In this way the University seeks to select for its student body those who not only meet the academic admission requirements but who also give promise of acquitting themselves creditably in the rigorous program of training afforded by the co-operative plan and of later becoming useful members of society.

### *Personal Interview*

Candidates for admission should communicate with the Director of Admissions, who will advise them frankly on the basis of past experience. A personal interview is always preferred to correspondence, and parents are urged to accompany their sons whenever this is possible. Effective guidance depends in large measure upon a complete knowledge of a candidate's background and problems. Parents invariably are able to contribute much information that aids the admissions officer in arriving at a decision. In general, a student is likely to be more successful in his college work if he does not enroll under the age of seventeen.

### *Application for Admission*

Each applicant for admission is required to fill out an application blank whereon he states his previous education, as well as the names of persons to whom reference may be made in regard to his character and previous training.

An application fee of five dollars (\$5) is required when the application is filed. This fee is non-returnable.

The last page of this catalog is in the form of an application blank. It should be filled out in ink and forwarded with the required five dollar fee to Director of Admissions, Northeastern University, Boston, Mass. Checks should be made out to Northeastern University.

Candidates are urged to visit the Office of Admissions for personal interview if it is possible for them to do so before submitting their applications. Office hours of the Department are from 9:00 A.M. to 4:00 P.M. daily; Saturdays to 12:00 N. The Director of Admissions will interview applicants on Wednesday evenings but by appointment only.

Upon receipt of the application, properly filled out, the College at once looks up the applicant's references and secondary school records. When replies have been received to the various inquiries, the applicant is informed as to his eligibility for admission.

Applications should be filed not later than May first, thus allowing ample time for the investigation of the applicant's secondary school records before he enrolls in the College.

The University reserves the right to place any entering student upon a period of trial. Whether he shall be removed from trial at the end of this time or requested to withdraw will be determined by the character of the work he has accomplished and his conduct during this trial period.

### *Registration*

Eligibility for admission does not constitute registration. Freshmen register at the University on September 7, 1939. No student is considered to have met the requirements for admission until he has successfully passed the required physical examination.

### *Advanced Standing*

Students transferring from approved colleges will be admitted to advanced standing provided their records warrant it. Whenever a student enters with advanced standing and later proves to have had inadequate preparation in any of his prerequisite subjects, the Faculty reserves the right to require the student to make up such deficiencies.

Applicants seeking advanced standing should arrange to have transcripts of their previous college records forwarded with their initial inquiry.

### *Entrance Condition Examinations in Boston*

Students who are deficient in required units for admission may remove these deficiencies by examination. Such examinations are held at the University unless special arrangements are made with the Department of Admissions to administer them elsewhere.

Students are advised to take such examinations on the earliest possible date in order that any deficiencies which they fail to clear may be made up in time to permit registration with the desired class and division.

The time of examinations is as follows:

10:00 A.M. to 12:00 N.

1:00 P.M. to 3:00 P.M.

During the current year examinations will be given on the following days: June 7, 1939; August 30, 1939. All other examinations will be given by special assignment.

### *Freshman Orientation Period*

In order that freshmen may be ready to pursue their academic work with greater composure and be somewhat acclimated



preceding the beginning of scholastic work, three or four days prior to the first term are devoted to a freshman orientation period. During this time freshmen are advised as to choice of program, and assisted in every way possible in order that they may be prepared to begin serious study and work on the first day of the college term. All freshmen are required to attend all exercises at the University scheduled during the orientation period.

An optional feature of the orientation program is the freshman camp conducted under the auspices of the Student Union. The camp is planned particularly for out-of-town students, although commuters are welcomed. It aims at providing a stimulating and wholesome environment under vacation conditions in which the new men may become acquainted with one another and with members of the faculty. The camp site on Lake Massapoag in the northern part of Massachusetts is admirably equipped for this purpose, having ample facilities for baseball, basketball, tennis, boating, and swimming. The cost of the two days at camp is nominal and most freshmen avail themselves of this opportunity for recreation prior to the beginning of the college year.

### *Physical Examination*

All freshmen receive a thorough physical examination at the University during the orientation period. All students are expected to report promptly at the appointed time for examination. Those who fail to appear at the appointed time will be charged a special examination fee of two dollars (\$2).

### *Freshman Counselors*

At the time of his matriculation each freshman is assigned to a personal counselor, a member of the faculty, who serves as an interested and friendly counselor during the perplexing period of transition from school to college. A personal record card is prepared for each student, containing certain pertinent data from his preparatory school record, the report of his physical examination at Northeastern, his scores on psychological tests, the results of placement examinations, and any special notes which may be of significance in counseling work. The aim of the freshman counseling system is primarily to assist students in making an effective start upon their programs and secondarily to acquire for the later use of guidance officers a fund of significant information relative to every freshman. Counseling is under the direction of a Dean of Students, assisted by a clinical psychologist, who handles the diagnosis and remedial treatment of problem cases.



### *Individual Attention to Freshmen*

Not only is attention given to the problems of the student in connection with his studies, but also the service is extended to include help upon any problem in which advice is needed and desired, the aim being to guide the student to the fullest possible personal development.

The college record of each student is carefully analyzed in the light of what could reasonably be expected of him, considering his previous school record, his score on the psychological test, and the other factors in his situation. If he is not doing his best work, an investigation is made to determine and eliminate the causes. If he is doing as well as could be expected or better, he is encouraged to continue to do so. In other words, each student is held to the most effective work possible, through advice, encouragement, and assistance.

### *First Year Common to All Curricula*

All engineering students carry the same courses of study throughout the freshman year during which they are given an opportunity to survey the various fields of engineering. Choice of curriculum can then be made more intelligently at the beginning of the sophomore year. Students who are unsuccessful in the basic courses of the freshman year will not be permitted to continue with an engineering program but will be advised to change their goal and type of training.

## Requirements for Graduation

THE College of Engineering offers five-year curricula, conducted on the co-operative plan, leading to the following degrees:

- I Bachelor of Science in Civil Engineering
- II \*Bachelor of Science in Mechanical Engineering
- III Bachelor of Science in Electrical Engineering
- IV Bachelor of Science in Chemical Engineering
- V Bachelor of Science in Industrial Engineering

Candidates for the Bachelor of Science degree in the College of Engineering must complete all of the prescribed work of the curriculum in which they seek to qualify together with ten additional semester hours of credit in elective subjects of a liberal nature. This makes a minimum of 147 semester hours required for the degree. A minimum of 125 weeks of college attendance is needed to fulfill this requirement. Students who undertake co-operative work assignments must also meet the requirements of the Department of Co-operative Work before they become eligible for their degrees.

No student transferring from another college or university is eligible to receive the S.B. degree until he has completed at least one academic year at Northeastern immediately preceding his graduation.

### *Scholarship Requirements*

Any student who fails to show a satisfactory standard of general efficiency in his professional field may be required to demonstrate his qualifications for the degree by taking such additional work as the faculty may prescribe. If he is clearly unable to meet the accepted standard of attainment, he may be required to withdraw from the University.

### *Graduation With Honor*

Candidates who have achieved distinctly superior attainment in their academic work will be graduated with honor. Upon special vote of the faculty a limited number of this group may be graduated with high honor or with highest honor. Students must have been in attendance at the University at least two years before they may become eligible for graduation with honor, with high honor, or with highest honor.

### *Thesis Option*

Theses are not required of candidates for the degree of Bachelor of Science in the several fields of engineering. Students who show special aptitude for thesis work, however, may be permitted to substitute an appropriate thesis for equivalent work in class. Such permission must be obtained by the candidate from the head of his professional department.

\*Includes options in Aeronautical Engineering, Air Conditioning Engineering, and Diesel Engineering.

## CURRICULUM I

### *Civil Engineering*

Civil engineering covers such a broad field that no one can become expert in its whole extent. It includes topographical engineering, municipal engineering, railroad engineering, structural engineering, and hydraulic and sanitary engineering. It covers land surveying, the building of railroads, harbors, docks, and similar structures; the construction of sewers, waterworks, roads and streets; the design and construction of girders, roofs, trusses, bridges, buildings, walls, foundations, and all fixed structures. All of these branches of engineering rest, however, upon a relatively compact body of principles, and in these principles the students are trained by practice in the classroom, in the field, and in the testing laboratory. The curriculum is designed to prepare the young engineer to take up the work of design and construction of structures, to aid in the location and construction of railways and highways, and to undertake intelligently the supervision of work in allied fields of engineering and in general contracting.

The following table sets forth the pre-requisite courses of this department, together with the advanced courses for which they are pre-requisite. Pre-requisite courses must be completed before the advanced courses based upon them may be taken. Advanced courses are tabulated at the left, their pre-requisite to the right.

ADVANCED COURSES		PRE-REQUISITE COURSES	
Second Year			
M 5	Differential Calculus	M 1	Algebra, M 4 Analytic Geom.
ME 20	Applied Mechanics	P 1	Physics I
EL 5	Electrical Machinery	P 2	Physics I
Third Year			
ME 22	Strength of Materials	ME 20	Applied Mechanics
CI 7	Curves and Earthwork	CI 4	Higher Surveying
Fourth Year			
CI 15	Theory of Structures	ME 22	Strength of Materials
ME 23	Strength of Materials	ME 22	Strength of Materials
CI 20	Advanced Surveying	CI 4	Higher Surveying
Fifth Year			
CI 23	Engineering Structures	CI 16	Theory of Structures
CI 25	Concrete	ME 22	Strength of Materials
CI 29	Structural Design	CI 16	Theory of Structures
CI 21	Sanitary Engineering	CI 12	Hydraulics

## I. Civil Engineering

FIRST TERM			SECOND TERM		
Course No.	Course	Semester Hours	Course No.	Course	Semester Hours
<i>First Year</i>					
E 1	English I.....	3	E 2	English I.....	3
M 1	Algebra.....	3	M 4	Analytic Geometry...	5
M 3	Trigonometry.....	2	PE 2	Hygiene.....	1
D 1	Graphics I.....	3	D 2	Graphics II.....	3
P 1	Physics I.....	3	P 2	Physics I.....	3
Ch 1 or Ch 3	General Chemistry	4	Ch 2 or Ch 4	Inorganic Chemistry	4
PE 3	Physical Training.....	0	PE 4	Physical Training.....	0
Ps 1-A	Orientation.....	0			
		18			19
<i>Second Year</i>					
M 5	Differential Calculus...	3	M 6	Integral Calculus.....	3
P 3	Physics II.....	2	P 4	Physics II.....	2
P 5	Physics Laboratory.....	1	P 6	Physics Laboratory...	1
CI 3	Surveying I.....	1½	CI 4	Surveying II.....	2½
CI 5	Surveying I, F & P....	1	CI 6	Surveying II, F & P....	1
EL 5	Electrical Machinery...	4	ME 20	Applied Mechanics...	3
		12½			12½
<i>Third Year</i>					
ME 21	Applied Mechanics....	3	ME 22	Strength of Materials...	3
ME 35	Heat Engineering.....	2	ME 36	Heat Engineering.....	2½
CI 7	Curves and Earthwork I	2	CI 8	Curves and Earthwork II	2
CI 9	Curves & Earth. I, F&P	1	CI 10	Curves & Earth. II, F&P	1
Ec 21	Economics.....	2	Ec 22	Economics.....	2
CI 11	Hydraulics.....	2½	CI 12	Hydraulics.....	2
		12½			12½
<i>Fourth Year</i>					
ME 23	Strength of Materials...	2	CI 20	Advanced Surveying...	2
ME 69	Testing Materials Lab. .	1½	ME 70	Testing Materials Lab. .	1½
CI 15	Theory Structures ....	3	CI 16	Theory Structures ....	3
CI 31	Highway Engineering...	2	CI 32	Highway Engineering...	2
S 1	Sociology.....	2	S 2	Sociology.....	2
Gy 1	Geology.....	2	Gy 2	Geology.....	2
		12½			12½
<i>Fifth Year</i>					
C 7	Engineering Conference	½	C 8	Engineering Conference	½
CI 23	Engineering Structures..	3	CI 24	Engineering Structures .	3
CI 25	Concrete.....	2	CI 26	Concrete.....	2
CI 27	Concrete Design.....	1	CI 28	Concrete Design.....	1
CI 29	Structural Design.....	2	CI 30	Structural Design.....	2
IN 5	Industrial Management I	2	IN 6	Industrial Management II	2
CI 21	Sanitary Engineering I..	2	CI 22	Sanitary Engineering II..	2
		12½			12½

NOTE: In addition to the prescribed program shown above, each student must complete at least ten semester hours of credit in electives of a liberal character, making a total of 147 semester hours required for the S.B. degree. This work may be taken in an extra 10-week period at college during any upper-class year, or in two summer terms.

SYNOPSIS OF COURSES OFFERED  
BY THE  
DEPARTMENT OF CIVIL ENGINEERING

PROFESSORS ALVORD, GRAMSTORFF, and BAIRD; MR. LENFEST

Courses offered in the first term bear odd numbers; those offered in the second term bear even numbers.

CI 3 *Surveying I*

The course is divided into two portions, the first of which treats of basic principles such as taping, theory of the transit and use of the transit, theory of the level, care of the level and use of the level.

The second portion deals with closed and random traverses, both the D.M.D. and the co-ordinate methods being used. Particular stress is laid upon having the student use the methods and procedures as outlined by the Massachusetts Land Court.

*1½ semester hour credits*

CI 4 *Surveying II*

The course consists of lectures and problem work in plane triangulation, double rodged levels, Coast and Geodetic leveling. The theory of the stadia and plane table is presented with their applications to topographic surveying. The theory of the sextant is also presented with its application to problems in hydrographic surveying.

*2½ semester hour credits*

CI 5 *Surveying I F. & P.*

The course is divided into two equal parts; the first part is devoted entirely to field work, while the second part is devoted entirely to office, or plotting work.

In the field an accurate tape and transit closed traverse is run. The angles are read by repetition. The distances are taped and each traverse point is carefully tied in. The aim is to obtain data for a closed traverse equal to or better than a Class A survey as set forth by the Massachusetts Land Court. Physical features are located from this traverse. The best methods and procedures of taking field notes are emphasized at all times.

In the drafting room the student is required to compute his closed traverse by both the D.M.D. and rectangular co-ordinate methods, to submit an original drawing showing the traverse and physical features, and to trace this drawing with careful attention to such details as lettering, appearance, and title.

*1 semester hour credit*



### CI 6 *Surveying II F. & P.*

Like course number CI 5, this course is divided equally into two portions, one consisting of field work, the other of drafting room work.

The field work is triangulation, including base line and measurement of angles by repetition with precise transits or theodolite. A complete plane table map is drawn locating physical features and contours. Some of the more elementary plane table problems such as intersection, resection, and three point problems are taken up. Precise and Coast and Geodetic leveling are also considered.

The drafting room work consists of the preparation of a topographic map based on computations of the triangulation systems, together with a tracing of the same; also the solving of such problems as the eccentric and the three-point problem (analytic solution).

*1 semester hour credit*

### CI 7 *Curves and Earthwork I*

The principles of reconnaissance, preliminary, and location surveys, as applied to highway and railroad surveying, are used as an introduction for this course. These are followed by the principles and application of simple, compound, reversed, and vertical curves. Throughout the course, both the railroad curve and the circular arc are used. Many of the more difficult or complex problems are solved by the use of rectangular co-ordinates giving a continuation of the co-ordinate method as taught in Surveying I.

*2 semester hour credits*

### CI 8 *Curves and Earthwork II*

This course is a continuation of CI 7, Curves and Earthwork. The various field procedures and methods of computation for taking cross sections are studied. Both the average end area method of computing volumes and the prismatic formulae are taught. The principles and methods used in balancing volumes and constructing and solving mass diagrams are presented.

The spiral or transition curve as applied to railroad and highway location is taken up. In the latter part of this course the fundamentals of railroad track problems are presented.

*2 semester hour credits*

### CI 9 *Curves and Earthwork I F. & P.*

A reconnaissance line is studied, and from this a preliminary center line in the form of a random traverse is run. From this preliminary line all the physical features several hundred feet each side of the center line are located. A map is then prepared showing these data. From this map suitable curves are computed and the location of the center line thus determined is staked out in the field.

*1 semester hour credit*

### *CI 10 Curves and Earthwork II F. & P.*

This is a continuation of course CI 9. A profile of the center line is run and from this a suitable sub-grade profile of this line is obtained. Further field work is undertaken to obtain a complete set of cross section notes for the whole line, and special emphasis on field notes is made throughout the course.

In the drafting room the volumes and balanced volumes are computed. From these a mass diagram is prepared and a complete earthwork solution is solved by use of the mass diagram and the profile.

*1 semester hour credit*

### *CI 11 Hydraulics*

The course, which opens with the laws of hydrostatics, treats of gases, and the amount and points of application of the center of pressures on submerged surfaces. The laws of hydrokinetics, including those of the flow of liquids through orifices, short tubes, weirs, pipe lines, and open channels are studied with particular reference to Bernouilli's theorem. Many demonstrations are made in the hydraulics laboratory. Other topics taken up are dimensional analysis, Reynold's number, and Stoke's Law.

*2½ semester hour credits*

### *CI 12 Hydraulics*

This is a continuation of CI 11 in which the principles of channel flow are taken up. The topics include Chezy's formula, critical depth, backwater, and hydraulic jump. The course concludes with a consideration of hydraulic turbines, reaction turbines, and pumps. Laboratory demonstrations are continued.

*2 semester hour credits*

### *CI 15 Theory of Structures*

The course comprises lectures and recitation work in the study of the loads, reactions, shears, and moments acting upon statically determinate structures of various kinds such as roofs and bridges. A complete and thorough presentation of the usual methods of determining bar stresses in simple trusses is also undertaken.

All of the foregoing studies are covered in detail by both algebraic and graphic methods.

*3 semester hour credits*

### CI 16 *Theory of Structures*

A complete study of the function of influence lines in determining the shears, moments, and stresses produced in various types of simple structures by moving load systems both distributed and concentrated. Methods of providing for impact stresses in structures are discussed and analyzed. The material given in CI 15 and also in this course is then summarized by the solution of problems determining the design stresses for several types of bridge structures.

*3 semester hour credits*

### CI 20 *Advanced Surveying*

The course covers the theory underlying the use of the sextant and transit in solving astronomical surveying problems in azimuth and time. It also includes aerial surveying and map projection. Computations in geodetic triangulation are made including the conversion of geodetic to rectangular co-ordinates.

*2 semester hour credits*

### CI 21 *Sanitary Engineering I*

The course is designed primarily to be a lecture course supplemented by problems involving the following items of water supply engineering; the collection and assimilation of rainfall data; the methods of collection and storage for ground water or surface waters; the preparation of a dam site and the elements of design as applied to masonry and earth filled dams; methods of distributing water for domestic use, manufacturing, and for fire fighting; treatment of water for hardness; treatments of water to provide a palatable and safe water supply free from contamination. Consideration is given also to present day activities in regard to the improvement of water supply apparatus; with special emphasis upon costs of installation, cost of apparatus, and total cost as applied to water supply engineering.

*2 semester hour credits*

### CI 22 *Sanitary Engineering II*

This is a companion course to CI 21, Sanitary Engineering I. It deals with the collection and disposal of sewage and storm water, including the following items; the quantity of sewage to be collected; the sewerage collection systems for either a separate or a combined system; the surveying and the collection of data in order to prepare plans for the design and the construction of the collection system; and a thorough discussion of the modern methods of treating the sewage and the operation of the sewerage disposal plants.

*2 semester hour credits*

### CI 23 Engineering Structures

The work begins with the design of bridge trusses having secondary web systems (including Baltimore and Petit trusses) and trusses with multiple web systems, lateral and portal bracing, transverse bents, viaduct towers and cantilever bridges.

A study is made of slope and deflection with emphasis on the methods of "Moment Area" and "Elastic Weights." The graphical solution of deflections as illustrated by the Williot-Mohr diagram is studied.

*3 semester hour credits*

### CI 24 Engineering Structures

The course consists of the study of rigid frames and continuous beams. All the customary methods are discussed, including the Three Moment Equation, Least Work, Slope Deflection, and Moment Distribution. The solution of statically indeterminate problems in continuous beams is obtained by algebraic and graphical methods.

*3 semester hour credits*

### CI 25 Concrete

Concrete as a material of construction is studied in detail, and the principles of reinforced concrete design are learned. Computations and designs are made of rectangular beams, T beams, and girders.

*2 semester hour credits*

### CI 26 Concrete

This course, a continuation of CI 25, covers the design of reinforced concrete columns, footings, retaining walls, and arches. It also includes a discussion of engineering foundations. The topics taken up are sub-surface explorations, pile foundations (both timber and concrete) sheet piles, cofferdams, open and pneumatic caissons, pier foundations in open wells, and bridge piers.

*2 semester hour credits*

### CI 27 Concrete Design

This course consists of the detailing and making of complete working drawings of the elements of design studied in CI 25, as applied to the design of a reinforced concrete factory building.

*1 semester hour credit*



### CI 28 *Concrete Design*

The design of the typical floor system of the building referred to in CI 27 is completed and drawn up together with similar drawings of typical columns and footings.

*1 semester hour credit*

### CI 29 *Structural Design*

The work consists of the design of a single track railroad bridge of the through plate girder type. The problem is taken complete in all detail covering design of section, rivet spacing, web and end stiffeners, various methods of web splicing and their design, end bearings, lateral bracing, and so forth.

*2 semester hour credits*

### CI 30 *Structural Design*

The preparation of shop drawings for some few details of the girder design problem. A series of design problems, some short, some long, of varying complexity and related to the design of trusses and frames, together with the detailing of a few.

*2 semester hour credits*

### CI 31 *Highway Engineering*

Beginning with a consideration of the various types of highways: residential, commercial, interurban, intersectional, express, etc., this course proceeds to a discussion of highway finance and administration, traffic surveys, highway operation and traffic control, design of highway systems, and the economic justification of highway improvement and extension. Problems of gasoline tax diversion and other taxation evils bearing upon highway development are included in the discussion.

*2 semester hour credits*

### CI 32 *Highway Engineering*

In this course are taken up the location, construction, and maintenance of roads, street design, and drainage; sidewalks; pavement foundations; and the construction, cost and maintenance of the various kinds of roads and pavements, including asphalt, brick, stone-block, wood-block, macadam (both water bound and bituminous), bituminous concrete, Portland Cement concrete, gravel and earth. Special consideration is given to the modern concrete road.

*2 semester hour credits*



## CURRICULUM II

*Mechanical Engineering*

The program of instruction is designed to give the student a broad foundation in those fundamental subjects which form the basis for all professional engineering practice, and especially to equip the young engineer with a knowledge of the various phases of mechanical engineering. The curriculum embraces instruction by textbook, lecture, laboratory, and designing room practice, and is planned definitely to develop the student's initiative and instill accuracy. Practically all courses are prescribed for the first four years, but in the senior year, students may specialize to a limited degree in aeronautical engineering, air conditioning engineering, or Diesel engineering. All programs lead to the degree of Bachelor of Science in Mechanical Engineering.

The following table sets forth the pre-requisite courses of the mechanical engineering curriculum, together with the advanced courses for which they are pre-requisite. Pre-requisite courses must be completed before the advanced courses based upon them may be taken. Advanced courses are tabulated at the left, their pre-requisite to the right.

ADVANCED COURSES	PRE-REQUISITE COURSES
	<i>Second Year</i>
M 5 Differential Calculus	M 1 Algebra, M 4 Analytic Geometry
ME 20 Applied Mechanics	P 1 Physics I
EL 5 Electrical Machinery	P 2 Physics I
	<i>Third Year</i>
ME 22 Strength of Materials	ME 20 Applied Mechanics
	<i>Fourth Year</i>
ME 23 Strength of Materials	ME 22 Strength of Materials
ME 24 Advanced Mechanics	ME 23 Strength of Materials
ME 31 Heat Engineering	ME 30 Heat Engineering
	<i>Fifth Year</i>
ME 51 Machine Design	ME 23 Strength of Materials
ME 15 Industrial Plants	ME 23 Strength of Materials
ME 44 Power Plant Engineering	ME 32 Heat Engineering
ME 73 Aircraft Structures	ME 29 Heat Engineering
ME 37 Diesel Engines	ME 40 Aerodynamics
ME 45 Air Conditioning Des. I	ME 31 Heat Engineering
	ME 42 Heating and Air Conditioning

## II. Mechanical Engineering

FIRST TERM			SECOND TERM		
Course No.	Course	Semester Hours	Course No.	Course	Semester Hours
<i>First Year</i>					
E 1	English I.....	3	E 2	English I.....	3
M 1	Algebra.....	3	M 4	Analytic Geometry....	5
M 3	Trigonometry.....	2	PE 2	Hygiene.....	1
D 1	Graphics I.....	3	D 2	Graphics II.....	3
P 1	Physics I.....	3	P 2	Physics I.....	3
Ch 1 or Ch 3	General Chemistry	4	Ch 2 or Ch 4	Inorganic Chemistry	4
PE 3	Physical Training.....	0	PE 4	Physical Training.....	0
Ps 1-A	Orientation.....	0			
		18			19
<i>Second Year</i>					
M 5	Differential Calculus...	3	M 6	Integral Calculus.....	3
P 3	Physics II.....	2	P 4	Physics II.....	2
P 5	Physics Laboratory.....	1	P 6	Physics Laboratory.....	1
IN 3	Production Processes I...	2½	IN 4	Production Processes II...	1½
EL 5	Electrical Machinery...	4	ME 20	Applied Mechanics....	3
		12½	D 4	Machine Drawing.....	2
					12½
<i>Third Year</i>					
ME 21	Applied Mechanics....	3	ME 22	Strength of Materials...	3
ME 1	Mechanism.....	3	EL 6	Electrical Measurements	2½
ME 29	Heat Engineering.....	2	ME 30	Heat Engineering.....	3
Ec 21	Economics.....	2	Ec 22	Economics.....	2
CI 11	Hydraulics.....	2½	CI 12	Hydraulics.....	2
		12½			12½
<i>Fourth Year</i>					
ME 23	Strength of Materials...	2	ME 24	Advanced Mechanics...	2
IN 5	Industrial Management I	2	IN 6	Industrial Management II	2
ME 31	Heat Engineering.....	2½	ME 32	Heat Engineering.....	2½
ME 61	Mechanical Eng. Lab...	2	ME 62	Mechanical Eng. Lab...	2
S 1	Sociology.....	2	S 2	Sociology.....	2
ME 3	Mechanism of Machines	2	{ ME 42 Heating and Air Cond.		
		12½	or ME 40 Aerodynamics.		2
					12½
<i>Fifth Year</i>					
C 7	Engineering Conference	½	C 8	Engineering Conference	½
ME 51	Machine Design.....	3	ME 52	Machine Design.....	3
ME 63	Mechanical Eng. Lab...	2½	ME 44	Power Plant Eng.....	2½
IN 21	Contracts.....	2	IN 16	Personnel.....	2
	Professional Electives:..	4½		Professional Electives:..	4½
		12½			12½
<i>Electives:</i>			<i>Electives:</i>		
ME 33	Refrigeration.....	2	ME 48	Air Conditioning Lab.	2
ME 45	Air Cond. Design I....	2½	ME 46	Air Cond. Design II....	2½
ME 37	Diesel Engines.....	2	ME 38	Diesel Laboratory.....	2
ME 39	Engine Dynamics.....	2½	ME 54	Diesel Engine Design...	2½
ME 73	Aircraft Structures....	2	ME 74	Aeronautical Lab.....	2
ME 15	Industrial Plants.....	2½	ME 16	Industrial Plants.....	2½
			ME 76	Aircraft Engine Design.	2½
			ME 34	Steam Turbines.....	2

NOTE: In addition to the prescribed program shown above, each student must complete at least ten semester hours of credit in electives of a liberal character, making a total of 147 semester hours required for the S. B. degree. This work may be taken in an extra 10-week period at college during any upper-class year, or in two summer terms.

SYNOPSIS OF COURSES OFFERED  
BY THE  
DEPARTMENT OF MECHANICAL ENGINEERING

PROFESSORS ZELLER, FERRETTI, STEARNS, and WHITTAKER,  
MR. WOLOWICZ

Courses offered in the first term bear odd numbers; those offered in the second term bear even numbers.

*ME 1 Mechanism*

This course deals mainly with a mathematical solution of problems involving angular and linear velocities and gear trains. It embraces a careful study of paths of mechanical movements and their application to velocity diagrams, quick-return mechanisms, and cams. The theory of gear tooth outlines is also investigated by graphical methods.

*3 semester hour credits*

*ME 3 Mechanism of Machines*

This course is designed to supplement the work in pure mechanism as covered in the course in Mechanism ME 1. The application of mechanisms to actual machines will be considered, so that the student may have a knowledge of a series of practical mechanisms adapted to carrying out special purposes and so that he may thereby increase his ability to analyze the action of other machines. During the course the student is required to solve a number of problems in which the principles discussed are applied to various machine tools.

*2 semester hour credits*

*ME 15 Industrial Plants*

The principles involved in the erection, installation, and management of an industrial plant are studied in this course. Various types of structures are described, with attention to such details as foundations, walls, columns, floors, windows, and so forth; and the calculations and layout for a typical mill are discussed. This material is followed by a problem on the calculation and layout of a machine shop, including power requirements and placement of machines, with special consideration to the best conditions for maximum production and the most effective routing of a given product.

*3 semester hour credits*

### ME 16 *Industrial Plants*

This course, a continuation of ME 15, includes a problem on the heating and air-conditioning of a building, and a design problem on the calculation and layout of a power plant. Sizes of equipment, costs of power generation, and various operating practices are discussed and worked out. The later problems of the course have to do with the layout of the power plant previously figured.

*3 semester hour credits*

### ME 20 *Applied Mechanics (Statics)*

The subjects treated are collinear, parallel, concurrent, and non-concurrent force systems in a plane and in space; the determination of the resultant of such systems by both algebraic and graphical means, special emphasis being placed on the string polygon method for coplanar force systems; the forces required to produce equilibrium in such systems; first moments; and problems involving static friction, such as the inclined plane and the wedge.

*3 semester hour credits*

### ME 21 *Applied Mechanics (Kinetics)*

The subjects treated are continuation of first moments as applied to varying intensity of force and to the determination of center of gravities of areas and solids; second moments and the application to the determination of moment of inertia of plane and solid figures, radius of gyration, polar moment of inertia; product of inertia principal axes, uniform motion, uniformly accelerated motion, variable accelerated motion, harmonic motion, simple pendulum, rotation, plane motion, work, energy, momentum and impact.

*3 semester hour credits*

### ME 22 *Strength of Materials*

The topics covered in this course are physical properties of materials, stresses in thin hollow cylinders and spheres, riveted connections of the structural and continuous plate type, welded connections, and beams; covering shearing force and bending moment with stress analysis due to these effects and the design of beams for both conditions.

*3 semester hour credits*

### ME 23 *Strength of Materials*

This is a continuation of ME 22 covering deflection of beams by the double integration method; stresses and strains in shafting due to torsion, angle of twist; horsepower; combined axial and bending loads, eccentric loads; compression members or columns by Euler's column formula, and by those of the Gordon-Rankine parabolic and straight line type.

*2 semester hour credits*



### ME 24 *Advanced Mechanics*

Advanced problems in the strength of materials and dynamics are treated. Among the subjects under discussion are non-symmetrical bending, curved bars, flat plates, thick hollow cylinders, dynamical stresses in machine parts, and allied subjects leading to the more advanced applications of mechanics in machine design, the elastic theory, and photoelasticity.

*2 semester hour credits*

### ME 29 *Heat Engineering*

The course is largely a description of the many appliances used in modern power plants. There is also taken up a discussion of boilers and boiler accessories, ash and coal handling systems, the various types of engines with their valve gears and governing devices, condensers, feed-water heaters, pumps, etc.

*2 semester hour credits*

### ME 30 *Heat Engineering*

In this introductory course in the fundamentals of thermodynamics the following subjects are discussed: general theory of heat and matter; first and second laws of thermodynamics; equations of state; fundamental equations of thermodynamics; laws of perfect gases; properties of vapors including development and use of tables and charts; thermodynamic processes of gases, and saturated and superheated vapors; and the general equations for the flow of fluids.

*3 semester hour credits*

### ME 31 *Heat Engineering*

The principles of thermodynamics are applied, in this course, to various engineering problems. The fundamental laws governing flow of gases and vapors through nozzles and orifices; the theory of vapor engines, including a discussion of the Rankine, the re-heating, the regenerative and the binary vapor cycles; the efficiencies and power calculations for actual steam engines; and the efficiencies and power requirements of single and multi-staged air compressors are the major subjects treated.

The various types of modern internal combustion engines are taken up in detail, including the latest designs of automobile, airplane, and Diesel engines.

Considerable stress is placed on the Diesel engine; and the advantages of the high speed, medium speed, and low speed types, two cycle and four cycle designs, solid and air injection Diesels in their respective fields are discussed.

*2½ semester hour credits*



### ME 32 *Heat Engineering*

This course is a continuation of the applications of the principles of thermodynamics to engineering problems. The subjects discussed are hot air and internal combustion engines; fuels and combustion, including a complete heat balance of a boiler plant; gas and vapor mixtures; and the principles of heat transfer as applied to steady flow conditions.

*2½ semester hour credits*

### ME 33 *Refrigeration*

A discussion is given of the history, theory, equipment, and applications of refrigeration. The properties and hazards of the various refrigerants; the simple and compound compression cycle; the absorption system; the jet or vapor system; devices for improving theoretical and operating performance of machines are among the topics considered.

*2 semester hour credits*

### ME 34 *Steam Turbines*

A study is first made of the flow of steam through nozzles, dynamic action of jets on moving blades, and other elements in the design of a steam turbine. This material is followed by a consideration of the various types of turbines, their governing mechanisms, condensing equipment, and other constructional details.

*2 semester hour credits*

### ME 35 *Heat Engineering*

This is a short course covering the elements of thermodynamics and affording a general discussion of modern power plant equipment. Many typical calculations are made in regard to apparatus.

*2 semester hour credits*

### ME 36 *Heat Engineering*

A continuation of ME 35, together with experimental work in the laboratory. Topics taken up in class include steam engine economy, multi-valve and multi-expansion engines, steam turbines, steam condensing equipment, pumps, and internal combustion engines.

In the laboratory experiments are performed on air blowers, steam engines, water wheels, pumps, and internal combustion engines.

*2½ semester hour credits*

### ME 37 Diesel Engines

Analysis of the internal engine cycles based on the air cycle as well as the analysis with variable specific heats. The different types of Diesel engines are discussed and the methods of fuel injection are studied for each type.

*2 semester hour credits*

### ME 38 Diesel Laboratory

This course includes a series of experiments on various apparatus used in modern power plants using Diesel power to illustrate under actual conditions the principles developed in ME 30 on thermodynamics. The students here apply in actual tests the knowledge they have acquired in the classroom, and make complete reports of these experiments including methods of testing and calculations.

*2 semester hour credits*

### ME 39 Engine Dynamics

A consideration of the vibrations, balancing, critical speeds, and inertia effects of high speed internal combustion engines.

*2 semester hour credits*

### ME 40 Aerodynamics

The course comprises a study of the fundamental theory of aerodynamics which underlies all calculations concerning the performance and stability of airplanes including characteristics of airfoils and elementary propeller theory.

*2 semester hour credits*

### ME 42 Heating and Air Conditioning

The most important methods of heating and air conditioning various types of buildings are studied in this course. The principles of heat transfer and air flow are reviewed, and the application of them in the various systems is brought out through lectures and problems.

*2 semester hour credits*

### ME 44 Power Plant Engineering

This course consists of topics and problems chosen largely from engineering practice selected to convey to the engineering students a firm grasp of fundamental principles and engineering methods of attacking and analyzing problems in power plant, not only from the point of view of scientific theory, but also with due consideration of the limitations imposed by practice and by costs. Efficiency and operating costs of different types of plants such as steam, hydro-electric, and Diesel engines are also carefully studied to determine the type of plant best suited for the conditions and location involved.

*2½ semester hour credits*

### ME 45 *Air Conditioning Design I*

A particular building will be taken as a class problem for heating and air conditioning. Various systems will be discussed with their application to the building in question. A layout of piping and duct system will be made together with complete calculations and estimation of cost. An investigation and study of existing plants around the city will be made with trips to these plants whenever possible in order to bring out the practical problems involved in the design.

*2½ semester hour credits*

### ME 46 *Air Conditioning Design II*

This course is a continuation of ME 45, and will be an application of the principles brought out and discussed in ME 42 on heating and air conditioning.

*2½ semester hour credits*

### ME 48 *Air Conditioning Laboratory*

This course consists of a series of tests on various types of air conditioning and heating apparatus. Among the pieces of apparatus tested are the following: air blower; unit heater; Carrier air conditioner provided for humidification or dehumidification; hot air furnace equipped with oil burner, humidifier, blower, and air filters; and also automatic controls and a special insulated constant temperature room for the study of problems in heating and air conditioning.

*2 semester hour credits*

### ME 51 *Machine Design*

Further practice is given the student in the application of theoretical principles previously studied, and at the same time he becomes familiar with the many practical details which must be considered in design work. The problems taken up in the early part of the course are of a static nature, while the later problems involve dynamical stresses. The problems vary from year to year, but the following are typical of the designs taken up; hydraulic press, arbor press, hydraulic flanging clamp, crane, air compressor, punch and shear, stone-crusher, and so forth.

In each design, the construction details are carefully considered, with special attention to methods of manufacture, provision for wear, lubrication, and so forth. The work is based on rational rather than empirical methods, the student being required to make all calculations for determining the sizes of the various parts and all necessary working drawings.

*3 semester hour credits*

### ME 52 *Machine Design*

This course comprises a continuation of Machine Design ME 51 with special reference to designs involving dynamical stresses. A thorough discussion of the principles and methods of lubrication forms a part of the course.

*3 semester hour credits*

### ME 54 *Diesel Engine Design*

This course consists of a layout problem in which an engine is designed to develop a definite horse power and in which the stresses in the various parts of the engine are analyzed.

*2½ semester hour credits*

### ME 61 *Mechanical Engineering Laboratory*

This course comprises a preliminary series of experiments upon various apparatus used in modern power plants, to illustrate under actual conditions the principles developed in Heat Engineering ME 30. These exercises are a preparation for more complete tests to be run during the following semester.

The knowledge they have gained in the classroom, the students here apply in actual tests, and make a complete report of these experiments, including methods of testing and calculations. The following experiments are illustrative of the type of work taken up; calibration of gages, indicator practice, plain slide valve setting, test on steam calorimeters, flow of steam through orifices, steam injector test, weir calibration, and tests on friction of drives.

*2 semester hour credits*

### ME 62 *Mechanical Engineering Laboratory*

This course consists of a series of tests on various types of power plant equipment, more complete than those made in ME 61. Among the pieces of apparatus tested are the following: steam engine, gasoline engine, air compressor, triplex power pump, steam pulsometer, rotary power pump, Pelton water wheel, centrifugal pumps, Ford gasoline engine, Warren steam pump, and steam turbine. Experiments are also made in flow of water measurements and flow of air.

A complete report is made on each test, describing the machine tested, explaining how the test is made, and giving the results, in accordance with the A.S.M.E. Power Test Codes.

*2 semester hour credits*

### ME 63 *Mechanical Engineering Laboratory*

This is a continuation of course ME 62, to which it is generally similar. Some further experiments are made in the testing of materials, such as compressive, tensile, torsion, impact, and bending



tests. A boiler test of from ten to twenty-four hours' duration is made to determine the performance and efficiency of the boilers in the power plant; and oils and coals are tested in the laboratory to determine their characteristics and calorific values.

*2½ semester hour credits*

### ME 69 Testing Materials Laboratory

A detailed study is made of the methods of manufacturing, properties, and uses of materials used in engineering work, such as iron, steel, lime, cement, concrete, brick, wood, and stone. Methods of testing and strength of various materials used by the engineer are also taken up. Each student is required to prepare a paper on some subject of especial importance which is assigned by the instructor.

The work of this course is carried out by the students, working in small groups. It includes tests to determine the elongation, reduction of areas, modulus of elasticity, yield point, and ultimate compressive strength of metals such as steel, cast iron, copper, and brass; compressive tests on timber and concrete; and tests to determine the deflection, modulus of elasticity, elastic limit, and ultimate transverse strength of steel and wooden beams subject to transverse load. Torsion and impact tests are carried out and their results correlated with those of the tensile tests.

The effect of various mixes and curing conditions on the tensile and transverse strength of cement and mortar are studied. Special problems are assigned in the failure of metals by fatigue.

*1½ semester hour credits*

### ME 70 Testing Materials Laboratory

A continuation of course ME 69.

*1½ semester hour credits*

### ME 73 Aircraft Structures

The fundamental analysis of the forces, reactions, shears, and moments as applied to aircraft structures is the object of this course.

*2 semester hour credits*

### ME 74 Aeronautical Laboratory

Experimental work in connection with airplane engines, aeronautical equipment, and wind tunnel performance.

*2 semester hour credits*

### ME 76 Aircraft Engine Design

This course covers the design of an airplane engine involving the thermodynamic principles as well as the stresses in the crankshaft, connecting rods, cylinders, springs, and other parts of the engine.

*2½ semester hour credits*



## CURRICULUM III

*Electrical Engineering*

Probably none of the branches of scientific knowledge has been so markedly modified during the past decade as that relating to Electrical Engineering, nor has any other exerted such a profound influence upon the scientific thought of the period. "A science, like a plant, grows in the main by a process of infinitesimal accretion. Its theory is built like a cathedral through the addition by many builders of many different elements, and this is pre-eminently true of electrical theory." It is absolutely essential that the electrical engineer who hopes to make a success of his work should be able to grasp readily and absorb effectively the meaning and content of the many scientific memoirs recording the results of research bearing upon and directly influencing his chosen branch of engineering.

He must have a thorough appreciation of physical theory, a clear understanding of chemical principles, and a broad working knowledge of mathematics. It is essential that each student planning to take this curriculum should realize the fundamental necessity of obtaining a solid grounding in these three subjects upon which the success of his future work will definitely hinge.

The following table sets forth the pre-requisite courses of this department, together with the advanced courses for which they are pre-requisite. Pre-requisite courses must be completed before the advanced courses based upon them may be taken. Advanced courses are tabulated at the left, their pre-requisite to the right.

ADVANCED COURSES		PRE-REQUISITE COURSES	
		<i>Second Year</i>	
M 5	Differential Calculus	M 1	Algebra, M 4 Analytic Geometry
ME 20	Applied Mechanics	P 1	Physics I
EL 1	Electrical Eng. I	P 2	Physics I
		<i>Third Year</i>	
ME 22	Strength of Materials	ME 20	Applied Mechanics
EL 9	Electrical Engineering II	EL 2	Electrical Engineering I
M 7	Differential Equations	M 6	Integral Calculus
		<i>Fourth Year</i>	
EL 17	Electrical Engineering III	M 6	Integral Calculus
ME 23	Strength of Materials	ME 22	Strength of Materials
EL 21	Electrophysics	M 7	Differential Calculus
		<i>Fifth Year</i>	
EL 25	Electrical Engineering IV	EL 18	Electrical Engineering III
EL 29	Electrical Engineering V-A	EL 22	Electrophysics

## III. Electrical Engineering

FIRST TERM			SECOND TERM		
Course No.	Course	Semester Hours	Course No.	Course	Semester Hours
<i>First Year</i>					
E 1	English I.....	3	E 2	English I.....	3
M 1	Algebra.....	3	M 4	Analytic Geometry....	5
M 3	Trigonometry.....	2	PE 2	Hygiene.....	1
D 1	Graphics I.....	3	D 2	Graphics II.....	3
P 1	Physics I.....	3	P 2	Physics I.....	3
Ch 1 or Ch 3	General Chemistry	4	Ch 2 or Ch 4	Inorganic Chemistry	4
PE 3	Physical Training.....	0	PE 4	Physical Training.....	0
Ps 1-A	Orientation.....	0			
		18			19
<i>Second Year</i>					
M 5	Differential Calculus....	3	M 6	Integral Calculus.....	3
P 3	Physics II.....	2	P 4	Physics II.....	2
P 5	Physics Laboratory.....	1	P 6	Physics Laboratory....	1
D 3	Engineering Drawing....	2	ME 20	Applied Mechanics....	3
IN 3	Production Processes I..	2½	IN 4	Production Processes II.	1½
EL 1	Electrical Engineering I.	2	EL 2	Electrical Eng. I.....	2
		12½			12½
<i>Third Year</i>					
ME 21	Applied Mechanics....	3	ME 22	Strength of Materials...	3
EL 9	Electrical Eng. II.....	1½	EL 10	Electrical Eng. II.....	2
EL 11	Electrical Eng. Lab....	1	EL 12	Electrical Eng. Lab....	1
EL 13	Elec. Measurements I..	2½	EL 14	Elec. Measurements II..	2
Ec 21	Economics.....	2	Ec 22	Economics.....	2
CI 11	Hydraulics.....	2½	M 7	Differential Equations..	2½
		12½			12½
<i>Fourth Year</i>					
EL 17	Electrical Eng. III.....	2	EL 18	Electrical Eng. III.....	2
EL 19	Electrical Testing Lab...	2	EL 20	Electrical Testing Lab..	2
EL 23	Electrical Meas. Lab....	2	EL 24	Adv. Elec. Meas. Lab..	2
ME 35	Heat Engineering.....	2	ME 36	Heat Engineering.....	2½
S 1	Sociology.....	2	S 2	Sociology.....	2
EL 21	Electrophysics.....	1	EL 22	Electrophysics.....	2
ME 69	Testing Materials Lab...	1½			
		12½			12½
<i>Fifth Year</i>					
C 7	Engineering Conference	½	C 8	Engineering Conference	½
EL 25	Electrical Eng. IV.....	3	EL 26	Electrical Eng. IV.....	3
EL 27	Adv. Elec. Eng. Lab....	2	EL 28	Adv. Elec. Eng. Lab....	2
EL 29	Electrical Eng. V-A....	2½	EL 30	Electrical Eng. V-A....	2½
EL 31	Elec. Eng. V-B.....	2½	EL 32	Electrical Eng. V-B....	2½
EL 33	Adv. Exp. Investigations	2	EL 34	Adv. Exp. Investigations	2
		12½			12½

NOTE: In addition to the prescribed program shown above, each student must complete at least ten semester hours of credit in electives of a liberal character, making a total of 147 semester hours required for the S.B. degree. This work may be taken in an extra 10-week period at college during any upper-class year, or in two summer terms.

SYNOPSIS OF COURSES OFFERED  
BY THE

## DEPARTMENT OF ELECTRICAL ENGINEERING

PROFESSORS PORTER, SMITH, RICHARDS, and CLEVELAND;  
MESSRS. ESSIGMANN and PIHL

Courses offered in the first term bear odd numbers; those offered in the second term bear even numbers.

*EL 1 Electrical Engineering I*

This course deals with the fundamental principles of D.C. machines, motional E.M.F. structural parts of machines, armature windings, armature reaction, commutation, subject matter which may be considered common to both generator and motor. In it also are considered the methods of field excitation and the characteristics of the shunt wound generator.

*2 semester hour credits**EL 2 Electrical Engineering II*

This course is a continuation of EL 1. It deals with the characteristics of the series and compound-wound generators, and the operating principles and characteristics of D.C. motors, shunt, series and compound both cumulative and differential together with the various methods of speed control.

*2 semester hour credits**EL 5 Electrical Machinery*

This course is concerned with the theory and application of the electrical equipment most often met by practicing engineers. Descriptions of the parts of the machines, their operating characteristics and of their special fields of usefulness are extended chiefly over shunt, series and compound direct current motors and generators, alternators, transformers, synchronous and induction motors. Consideration is given to auxiliary apparatus insofar as necessary to a good understanding of the functioning of the machinery as a whole.

Tests are made on various direct and alternating current machines. The object is to give the students facility in connecting and operating the machines as well as to observe in actual practice the characteristics taken up in the lectures. Outside reports are required to be written up for each experiment.

*4 semester hour credits*

### *EL 6 Electrical Measurements*

The course comprises a brief study of measurements in general, and precision measure as applied to electrical measurements in particular. Resistance devices, galvanometers, ammeters, and voltmeters are next discussed, the treatment of other instruments being taken up later in connection with their use. This is followed by a detailed discussion of the methods of measuring various electrical quantities (which involves the use of visual indicating devices) resistance, resistivity, conductance; D.C. electromotive force, current, power, and energy. Some consideration is given to the principles and operation of vacuum tubes. Appropriate laboratory experiments are included.

*2½ semester hour credits*

### *EL 9 Electrical Engineering II*

A study of electrostatic fields, force, and potential; magnetic fields; and the energy content of each. The elementary differential equations of circuits containing resistance, inductance, and capacity combinations are solved. Complex algebra as applied to the study of sinusoidal waves concludes the course.

*1½ semester hour credits*

### *EL 10 Electrical Engineering II*

A study of single phase alternating currents and circuits, including series, parallel, and series-parallel combinations; Kirchoff's laws; non-sinusoidal waves; power; and filters.

*2 semester hour credits*

### *EL 11 Electrical Engineering Laboratory*

This is a laboratory course intended to develop a thorough understanding of the operating characteristics of the individual machines studied in course EL 1 and EL 2, including work and experiments on armature and field resistance measurement, heat runs, connection of D.C. generators, and speed variations in a shunt motor. As it is also the purpose of this course to inculcate correct methods of work and preparation of preliminary and final reports, no definite number of experiments is required, but the utmost emphasis is placed upon the quality of the data and style and content of the completed reports.

*1 semester hour credit*

### *EL 12 Electrical Engineering Laboratory*

This course continues the approach outlined in EL 11 and consists of experiments on series and compound motors, stray power testing and compound generator characteristics.

*1 semester hour credit*



### *EL 13 Electrical Measurements I*

This course is designed to acquaint the student with the theory of precision measure as applied to electrical measurement in particular. Some of the subjects covered are theory of measurements, directly and indirectly measured quantities, recording of observations, rules of significant figures, classification of error, law of error, characteristics of error, and laws of average deviation.

Most of the problems studied fall in the following two general classifications: (1) Given the precision measures of the directly measured quantities, to determine the precision measure of the indirectly measured quantity as calculated by the use of engineering equations which apply to measurements work. (2) Given the prescribed precision to be obtained in the indirectly measured quantity, to determine the precision measure of the directly measured components which enter into its calculation.

In this course parts and theory of operation of resistance devices, galvanometers, ammeters, and voltmeters are discussed, the treatment of other instruments being taken up later in connection with their use. This is followed by a detailed discussion of the methods of measuring various electrical quantities (which involves the use of visual, indicating devices) resistance resistivity, conductance; D.C. electromotive force, current, power, and energy.

The principles taught in this course are immediately applied in all experiments run in the measurements laboratory and so far as necessary in the machine testing laboratory.

*2½ semester hour credits*

### *EL 14 Electrical Measurements*

The following electrical quantities are taken up, with a detailed discussion of the methods of measuring them, which involves the use of both visual and sound indicating devices; resistance, capacitance, inductance, magnetic induction, A.C. power and energy. This also includes some work on the uses of circuits and bridges designed for high frequency measurements and tube constant determination. The student is given a thorough discussion of the construction, theory of operation, method of use, sources of error, etc., of the types of measuring instruments used in commercial work and in the standardizing laboratory.

*2 semester hour credits*

### *EL 17 Electrical Engineering III*

This course is a continuation of Electrical Engineering II. It deals principally with polyphase circuits. Both balanced and unbalanced circuits are considered. The unbalanced condition is studied both by use of Kirschhoff's Laws and by the method of symmetrical phase components.

*2 semester hour credits*



### *EL 18 Electrical Engineering III*

A careful, thorough, and detailed study of the construction, theory, operating characteristics, and testing of transformers is the aim of this course. Particular attention is given to single phase and polyphase transformers used for power purposes. Special types of transformers studied include the constant current transformer, the auto-transformer, and instrument transformers.

*2 semester hour credits*

### *EL 19 Electrical Testing Laboratory*

This course consists of a series of experiments involving the testing of machines. Preliminary reports are written by all students before the tests are performed in the laboratory. Experiments of the following type are used: measurement of stray load loss of D.C. motor, efficiency of machine by method of electrical supply of losses, electrical separation of losses, measurement of losses by retardation method, speed control of direct current motors by thyratrons.

*2 semester hour credits*

### *EL 20 Electrical Testing Laboratory*

This is a continuation of EL 19 but the experiments are mostly on alternating current circuits and transformers. Typical experiments are studies of alternating current series and parallel circuits, ratio of transformation and core loss measurements for transformers, determination of the efficiency and voltage regulation of a transformer, transformer heat test, tests on a constant current transformer.

*2 semester hour credits*

### *EL 21 Electrophysics*

The first part of this course is concerned with Faraday's Rule and the extended Ampere Rule, divergence of electrical vectors, Poisson's equation, and Maxwell's field equations and wave equations. Study is then made of molecular activity, and various properties of and measurements on electrons.

*1 semester hour credit*

### *EL 22 Electrophysics*

Continuing EL 21 the topics considered are photo-electricity, X-rays, atomic structure and the spectrum, vacuum tubes, radio-activity, and the modern physics of matter and waves.

*2 semester hour credits*

### *EL 23 Electrical Measurements Laboratory*

This course consists of a series of experiments emphasizing the principles developed in courses EL 13 and EL 14. The student becomes familiar with the use of the standard apparatus in use in testing laboratories. Particular stress is laid on the correct use of the apparatus, and precision discussions are required throughout.

The experiments cover such matters as the measurement of resistance by various methods, resistivity, conductivity, electromotive force, current, inductance, mutual inductance, capacitance, hysteresis loss, etc., in cable testing, magnetic testing, wave form determination, and the use of special apparatus.

Thorough training in the principles of precision of measurements is also given, and applied to each experiment performed.

*2 semester hour credits*

### *EL 24 Advanced Measurements Laboratory*

This course is given over to the use of laboratory and secondary standards and precision methods as applied to checking resistances, calibration of indicating and integrating instruments of various types.

It involves the use of the potentiometer, Weston laboratory standard instruments; precision model Kelvin Low Resistance and Carey-Foster Bridges; Westinghouse portable oscillograph, cathode ray oscillograph; ordinary, reflex, and logarithmic vacuum tube voltmeter, Anderson Bridge, Edgerton Stroboscope; low, medium, and high frequency oscillator; vacuum tube bridge; potential phase shifters and rotating standard; testing for characteristics and investigation of the action of multi-electrode tubes, thyatron tungar rectifier, artificial telephone line, and Piezo oscillating crystals.

Precision work is insisted on throughout, and while the student is trained to develop speed and quickness of manipulation, this is never at the expense of quality and accuracy of the work.

*2 semester hour credits*

### *EL 25 Electrical Engineering IV*

In this course a detailed study is made of alternating current synchronous machines. In addition to the study of the synchronous generator and the synchronous motor, considerable time is spent in discussing the problems involved in operating synchronous generators in parallel.

*3 semester hour credits*

### *EL 26 Electrical Engineering IV*

This course is a continuation of EL 25. It deals with other types of alternating current machines. The machines studied in detail include the synchronous converter, the mercury arc rectifier, single phase and polyphase induction motors, induction generators, series and repulsion motors. The method of symmetrical phase components is used in the study of unbalanced conditions in certain types of motors.

*3 semester hour credits*

### *EL 27 Advanced Electrical Engineering Laboratory*

This is a laboratory course to accompany EL 25 in alternating current machinery. The work includes tests on the heating, efficiency, and determination of the characteristics of various types of alternating current machinery, such as transformers, generators, and motors. A detailed preliminary study is made of each assigned experiment, involving the method to be used in obtaining the necessary data, and the manner of obtaining the required results from this data. This is embodied in a preliminary report. The student then does the necessary laboratory work to obtain the required data, and finally works up the whole into a detailed final report. A minimum of assistance is given by the instructor in the actual laboratory work, the initiative and resourcefulness of the student being depended on to the greatest extent.

*2 semester hour credits*

### *EL 28 Advanced Electrical Engineering Laboratory*

This is a continuation of EL 27 and accompanies EL 26. Preliminary and final reports similar to those of EL 27 are required in this course but the experiments deal more largely with the various types of alternating current motors. Provision is also made, toward the latter part of this course, for some choice by the student as to the type of investigation or experiment he wishes to carry on.

*2 semester hour credits*

### *EL 29 Electrical Engineering V-A*

This course is designed to give the student a thorough grounding in the theory and application of the various types of electron tubes. It is not a course in radio communication although, of course, the tubes used for this purpose are considered. The material covered deals with fundamental constants of the vacuum tube, equivalent and alternative plate and grid circuit theorems, paths of operation, maximum, and maximum undistorted power output, inter-electrode capacity and low power amplifiers.

*2½ semester hour credits*

### *EL 30 Electrical Engineering V-A*

This course is based on material covered in EL 29 and takes up the discussion of the uses of thermionic tubes in measuring instruments, oscillographs, rectifying and amplifying circuits, oscillators, and modulators, and so on.

*2½ semester hour credits*

### *EL 31 Electrical Engineering V-B*

This course given during the first semester of the senior year deals with the fundamentals of electrical transmission circuits. Hyperbolic functions and their application, the general differential equations of the transmission line, fundamental line constants, position angles, Pl and T structures, all developed for the D.C. circuits.

*2½ semester hour credits*

### *EL 32 Electrical Engineering V-B*

This course is a continuation of EL 31. It begins with the consideration of complex hyperbolic functions and then deals with the alternating current transmission circuit, the initial transient state, quarter and half wave line, and the fundamental properties of artificial lines and filter circuits.

*2½ semester hour credits*

### *EL 33 Advanced Experimental Investigations*

All seniors in the Department of Electrical Engineering are required to complete a thesis or an equivalent amount of advanced experimental work in the laboratories. Seniors not receiving departmental approval of a thesis subject will be required to complete satisfactorily eight advanced experimental investigations. Two required investigations each will be given in A. C. Machinery, Electronics, and Transmission, and every student is expected to select an additional two in any one of the three fields.

Typical of the experiments available are the following: Motional impedance of a telephone receiver, D.C. artificial transmission line, a study of Blondel's two reaction theory of salient pole synchronous machine, Waremeter calibration, and a study of the thyatron inverter.

*2 semester hour credits*

### *EL 34 Advanced Experimental Investigations*

A continuation of EL 33 in which the following experiments are offered, Magnetic comparitor and Thompson permeameter, Power angle characteristics of a synchronous machine. A study of the complete speed-torque curve of a squirrel cage induction motor, Measurements of R, L, and C with a radio frequency bridge. Students who desire to investigate other problems for which equipment is available will be permitted to do so with the approval of the instructor in charge.

*2 semester hour credits*



## CURRICULUM IV

*Chemical Engineering*

The chemical engineer has been well defined as a "professional man experienced in the design, construction, and operation of plants in which materials undergo chemical and physical change." It is the duty of the chemical engineer to cut the costs, increase production, and improve the quality of the products in the industry.

The chemical engineer must possess a working knowledge of the fundamental sciences, he must understand and know how to work with men, and he must recognize in his work the "correct appraisement of values and costs." In addition, he must possess the ability to apply his knowledge to the development and operation of chemical processes and plants.

The curriculum furnishes instruction in the fundamental sciences of chemistry, physics, and mathematics; the elements of electrical and mechanical engineering; and in the basic unit chemical engineering operations, such as heating, evaporating, filtering, distilling, crushing, extracting, drying, and so forth. Courses of a more liberal nature are also available as electives in order that the student may become acquainted with fields of knowledge other than chemical engineering and thus broaden his educational background.

The following table sets forth the pre-requisite courses of this department, together with the advanced courses for which they are pre-requisite. Pre-requisite courses must be completed before the advanced courses based upon them may be taken. Advanced courses are tabulated at the left, their pre-requisite to the right.

ADVANCED COURSES	PRE-REQUISITE COURSES
<i>Second Year</i>	
M 5 Differential Calculus	M 1 Algebra, M4 Analytic Geometry
ME 20 Applied Mechanics	P 1 Physics I
Ch 11 Qual. Anal. Lab.	Ch 2 Inorganic Chemistry
Ch 9 Qualitative Analysis	Ch 2 Inorganic Chemistry
EL 5 Electrical Machinery	P 2 Physics I
<i>Third Year</i>	
ME 22 Strength of Materials	ME 20 Applied Mechanics
Ch 15 Quantitative Analysis	Ch 10 Qualitative Analysis
M 7 Differential Equations	M 6 Integral Calculus
<i>Fourth Year</i>	
ChE 23 Chem. Eng. III	ChE 21 Chemical Eng. I
<i>Fifth Year</i>	
ChE 25 Industrial Chemistry	Ch 10 Qualitative Analysis
Ch 35 Ind. Org. Chemistry	Ch 32 Org. Chemistry II
Ch 45 Physical Chem. III	Ch 44 Physical Chem. II



## IV. Chemical Engineering

FIRST TERM			First Year		SECOND TERM		
Course No.	Course	Semester Hours	Course No.	Course	Semester Hours		
E 1	English I.....	3	E 2	English I.....	3		
M 1	Algebra.....	3	M 4	Analytic Geometry....	5		
M 3	Trigonometry.....	2	PE 2	Hygiene.....	1		
D 1	Graphics I.....	3	D 2	Graphics II.....	3		
P 1	Physics I.....	3	P 2	Physics I.....	3		
Ch 1	General Chemistry.....	4	Ch 2	Inorganic Chemistry...	4		
PE 3	Physical Training.....	0	PE 4	Physical Training.....	0		
Ps 1-A	Orientation.....	0					
		18					19
Second Year							
M 5	Differential Calculus...	3	M 6	Integral Calculus.....	3		
P 3	Physics II.....	2	P 4	Physics II.....	2		
P 5	Physics Laboratory.....	1	P 6	Physics Laboratory....	1		
EL 5	Electrical Machinery...	4	ME 20	Applied Mechanics...	3		
Ch 9	Qualitative Analysis...	2	Ch 10	Qualitative Analysis...	2		
Ch 11	Qual. Analysis Lab....	1	Ch 12	Qual. Analysis Lab. ...	1		
		13					12
Third Year							
ME 21	Applied Mechanics...	3	ME 22	Strength of Materials...	3		
M 7	Differential Equations..	2½	ME 30	Heat Engineering.....	3		
Ch 15	Quantitative Analysis...	1	Ch 16	Quantitative Analysis...	1		
Ch 17	Quant. Analysis Lab...	2	Ch 18	Quant. Analysis Lab...	2		
Ec 21	Economics.....	2	Ec 22	Economics.....	2		
ChE 21	Chemical Eng. I.....	2	ChE 22	Chemical Eng. II.....	1½		
		12½					12½
Fourth Year							
ChE 23	Chemical Eng. III.....	3	ChE 24	Chemical Eng. IV.....	3		
ChE 29	Chemical Eng. Lab....	1½	ChE 30	Chemical Eng. Lab....	2½		
Ch 31	Organic Chemistry I...	2	Ch 32	Organic Chemistry II...	2		
Ch 33	Organic Chem. Lab. I..	1	Ch 34	Organic Chem. Lab. II..	1		
S 1	Sociology.....	2	S 2	Sociology.....	2		
Ch 43	Physical Chemistry I...	2	Ch 44	Physical Chemistry II..	2		
Ch 41	Library Research Probs.	1					
		12½					12½
Fifth Year							
C 7	Engineering Conference	½	C 8	Engineering Conference	½		
ChE 25	Industrial Chemistry...	1	ChE 26	Industrial Chemistry...	1		
ChE 27	Chemical Plant Design	3	ChE 28	Chemical Plant Design	3		
Ch 35	Ind. Org. Chemistry...	2	Ch 36	Ind. Org. Chemistry...	2		
Ch 37	Org. Chem. Lab. III...	1½	Ch 38	Org. Chem. Lab. IV...	1½		
IN 5	Indus. Management I...	2	IN 6	Indus. Management II..	2		
Ch 45	Physical Chemistry III..	2½	Ch 46	Physical Chemistry IV..	2½		
		12½					12½

NOTE: In addition to the prescribed program shown above, each student must complete at least ten semester hours of credit in electives of a liberal character, making a total of 147 semester hours required for the S.B. degree. This work may be taken in an extra 10-week period at college during any upper-class year, or in two summer terms.

SYNOPSSES OF COURSES OFFERED  
BY THE  
DEPARTMENT OF CHEMICAL ENGINEERING

PROFESSORS BAKER and MORGAN; MR. CODY

Courses offered in the first term bear odd numbers; those offered in the second term bear even numbers.

*ChE 21 Chemical Engineering I*

A study of methods of determining rates of flow and power consumption of fluids flowing through pipe lines. This course differs from the usual course in hydraulics chiefly in the amount of emphasis placed on the flow of gases and oils.

*2 semester hour credits*

*ChE 22 Chemical Engineering II*

This is essentially a problem course developed around the study of fuels and combustion. Special attention is given to principles underlying the methods of calculation which are of value to the chemical engineer.

*1½ semester hour credits*

*ChE 23 Chemical Engineering III*

This course consists of a study of the mechanical operations peculiar to the chemical industry. Such unit operations as flow of heat, evaporation, humidity control, and air conditioning are considered. Many problems of a practical nature are solved during the course.

*3 semester hour credits*

*ChE 24 Chemical Engineering IV*

This is a continuation of ChE 23. The unit operations studied are drying, crushing, separation, filtration, distillation, and gas absorption.

*3 semester hour credits*

*ChE 25 Industrial Chemistry*

The more important industrial processes are studied with a view to the general chemistry involved and to the various types of apparatus necessary to carry out the chemical reactions. The student is given a broad survey of the field of chemical industry and a knowledge of the relationships of the different industries to one another. The heavy chemical industries are studied in-

tensively and the uses of their products in other industries are carefully considered. Special attention is given to the economics of the chemical industry. Lectures, problems, plant inspection trips, and reports are included.

*1 semester hour credit*

### *ChE 26 Industrial Chemistry*

This course follows ChE 25 and continues the study of inorganic chemical industries.

*1 semester hour credit*

### *ChE 27 Chemical Plant Design*

This course includes a consideration of the various problems which arise during the evolution of a chemical plant. The study of the development of a chemical plant is begun with a survey of the literature, and is continued in the laboratory where processes are tried out and developed. Data is obtained for use later in the design and selection of large scale equipment for carrying out the process.

*3 semester hour credits*

### *ChE 28 Chemical Plant Design*

The experimental work of ChE 27 is continued and the data obtained is calculated to a large scale basis. Available large scale equipment is selected and equipment embodying special features is designed. Major economic problems are considered and estimates of production costs made. A comprehensive report is required.

*3 semester hour credits*

### *ChE 29 Chemical Engineering Laboratory*

This laboratory course is based on the unit operations studied in ChE 23. The squad system is used. Experiments are performed on small-scale plant equipment that has been specially designed or selected for the purpose. Detailed reports are required.

*1½ semester hour credits*

### *ChE 30 Chemical Engineering Laboratory*

This is a continuation of ChE 29. Experiments are performed in the unit operations which are being studied simultaneously in ChE 24.

*1½ semester hour credits*

## CURRICULUM V

*Industrial Engineering*

Industrial engineering is a program of study in which the student is given a foundation in the elementary and tool subjects of mechanical engineering combined with an intensive program of study in business management and selected engineering courses which are specially designed for men who seek positions in the administration and management of industrial enterprises.

Since the fundamental training for a prospective mechanical or industrial engineer is essentially the same, the two groups are combined for instructional purposes during the freshman, sophomore, and middler years. The attention of industrial engineering students is called to the following courses offered in these years which constitute a part of the strictly professional training for becoming an industrial engineer:

IN 3 Production Processes  
IN 4 Production Processes  
ME 29 Heat Engineering

ME 1 Mechanism  
EL 5 Electrical Machinery  
D 4 Machine Drawing

The following table sets forth the pre-requisite courses of this department, together with the advanced courses for which they are pre-requisite. Pre-requisite courses must be completed before the advanced courses based upon them may be taken. Advanced courses are tabulated at the left, their pre-requisite to the right.

ADVANCED COURSES	PRE-REQUISITE COURSES
	<i>Second Year</i>
M 5 Differential Calculus	M 1 Algebra, M4 Analytic Geometry
ME 20 Applied Mechanics	P 1 Physics I
EL 5 Electrical Machinery	P 2 Physics I
	<i>Third Year</i>
ME 22 Strength of Materials	ME 20 Applied Mechanics
	<i>Fourth Year</i>
ME 23 Strength of Materials	ME 22 Strength of Materials
IN 24 Statistics	IN 23 Statistics
	<i>Fifth Year</i>
IN 9 Cost Accounting	IN 8 Industrial Accounting
IN 25 Industrial Plants	ME 23 Strength of Materials
	{ IN 3, 4 Production Processes
IN 26 Industrial Plants	{ IN 6 Industrial Management
	{ ME 29 Heat Engineering

## V. Industrial Engineering

## First Year

FIRST TERM			SECOND TERM		
Course No.	Course	Semester Hours	Course No.	Course	Semester Hours
E 1	English I.....	3	E 2	English I.....	3
M 1	Algebra.....	3	M 4	Analytic Geometry....	5
M 3	Trigonometry.....	2	PE 2	Hygiene.....	1
D 1	Graphics I.....	3	D 2	Graphics II.....	3
P 1	Physics I.....	3	P 2	Physics I.....	3
Ch 1	General Chemistry.....	4	Ch 2	Inorganic Chemistry....	4
PE 3	Physical Training.....	0	PE 4	Physical Training.....	0
Ps 1-A	Orientation.....	0			
		18			19

## Second Year

M 5	Differential Calculus...	3	M 6	Integral Calculus.....	3
P 3	Physics II.....	2	P 4	Physics II.....	2
P 5	Physics Laboratory.....	1	P 6	Physics Laboratory....	1
IN 3	Production Processes I...	2½	IN 4	Production Processes II..	1½
EL 5	Electrical Machinery...	4	ME 20	Applied Mechanics....	3
		12½	D 4	Machine Drawing.....	2
					12½

## Third Year

ME 21	Applied Mechanics....	3	ME 22	Strength of Materials...	3
ME 1	Mechanism.....	3	EL 6	Electrical Measurements	2½
ME 29	Heat Engineering.....	2	ME 30	Heat Engineering.....	3
Ec 21	Economics.....	2	Ec 22	Economics.....	2
CI 11	Hydraulics.....	2½	CI 12	Hydraulics.....	2
		12½			12½

## Fourth Year

ME 23	Strength of Materials...	2	ME 42	Heating and Air Cond.	2
IN 5	Industrial Management I	2	IN 6	Indust. Management II..	2
IN 7	Industrial Accounting...	2	IN 8	Industrial Accounting...	2
IN 23	Statistics.....	2½	IN 24	Statistics.....	2½
S 1	Sociology.....	2	S 2	Sociology.....	2
ME 61	Mechanical Eng. Lab...	2	ME 62	Mechanical Eng. Lab...	2
		12½			12½

## Fifth Year

C 7	Engineering Conference	½	C 8	Engineering Conference	½
IN 9	Cost Accounting.....	2½	IN 10	Cost Accounting.....	2½
IN 15	Sales Engineering.....	2½	IN 16	Personnel Adm.....	2
IN 11	Methods Engineering...	2½	IN 14	Industrial Finance.....	2½
IN 21	Contracts.....	2	IN 18	Sales Eng. Problems....	2½
IN 25	Industrial Plants.....	2½	IN 26	Industrial Plants.....	2½
		12½			12½

NOTE: In addition to the prescribed program shown above, each student must complete at least ten semester hours of credit in electives of a liberal character, making a total of 147 semester hours required for the S.B. degree. This work may be taken in an extra 10-week period at college during any upper-class year, or in two summer terms.



SYNOPSIS OF COURSES OFFERED  
BY THE  
DEPARTMENT OF INDUSTRIAL ENGINEERING

PROFESSORS KNOWLES, JACKSON, ALEXANDER, and THOMSON;  
MR. CRUICKSHANK

Courses offered in the first term bear odd numbers; those offered in the second term bear even numbers.

*IN 3 Production Processes I*

This is a descriptive course in which are studied the methods employed in foundry work and shop practice, including the wood working and machine shop.

The work is composed largely of demonstrations by the instructor, covering the principles of molding for the purpose of showing the reasons for draft and the special features of pattern construction. The names and characteristics of materials, equipment, and machines used in the foundry are taken up in detail, and the methods of tempering sand and making simple green sand molds explained.

The construction, operation, and uses of the various machine tools, such as the lathe, boring mill, milling machine, drill press, grinder, planer, gear cutter, and shaper are explained by lectures and demonstrations.

*2½ semester hour credits*

*IN 4 Production Processes II*

This course is designed to acquaint the student with the fundamental principles of tool engineering as applied in the modern manufacturing plant.

The tools used in production are discussed and their care and maintenance illustrated.

Considerable time is devoted to jig and fixture design. Calculations are developed which may be used to determine relative costs and advantages in using various types of shop equipment.

*1½ semester hour credits*

*IN 5 Industrial Management I*

The course in Industrial Management places emphasis on the administrative phases of factory and plant operation. It deals with the location of the plant; plant design, structure, and plant services; plant layout; standardization, simplification, and specialization; and the public relations of industry.

*2 semester hour credits*

### IN 6 *Industrial Management II*

This course is a continuation of Industrial Management IN 5. It deals with the control of plant operations. Each department of a modern industrial concern is considered, emphasis being placed on the organization and management problems confronted and how they may be handled, with the intention that the student shall become familiar with the activities and general working of each department and the relationship which the departments hold to one another and to the business as a whole. In detail are considered: budgeting, standards of performance, wage systems, organization, routing, scheduling, dispatching, inventory control, quality control, and visual controls such as the organization chart, planning board, and departmental report. Considerable attention is given to the distribution of overhead expenses and standard costs.

*2 semester hour credits*

### IN 7 *Industrial Accounting*

A course designed for the engineer studying accounting for the first time, including the elements of books of original and final entry, the construction and analysis of income statements, balance sheets, work sheets, and the transactions involving interest, discounts, notes, and drafts.

*2 semester hour credits*

### IN 8 *Industrial Accounting*

A continuation of course IN 7 presenting the accounting problems of partnerships, corporations, manufacturing businesses, as well as miscellaneous problems on accounting.

*2 semester hour credits*

### IN 9 *Cost Accounting*

A thorough study of the principles of costing process, job order and special order manufacturing, through the presentation and solution of actual cost problems.

*2½ semester hour credits*

### IN 10 *Cost Accounting*

A continuation of course IN 9, presenting cost systems, standard costs and the relationships of cost, price, and profits.

*2½ semester hour credits*

### IN 11 *Methods Engineering*

This course comprises (1) a detailed study of time and motion study work; (2) a complete study and actual practice in micro-motion which is the use of motion pictures in the motion study work; (3) a preparation of simo-charts (the use of colored charts and symbols called Therbligs which show all the elements in an operation cycle; (4) the making of process charts which is the use of specifically designed symbols, or industrial shorthand, to record motion analysis.

*2½ semester hour credits*

### IN 14 *Industrial Finance*

The course in Industrial Finance is divided into two parts; the first half of the course presents the differences in the organization of partnerships, corporations, individual proprietorships, joint-stock companies, and holding companies.

The second half of the course deals with problems of financial analysis. Industries are examined to determine their financial condition; their position in relation to similar concerns; the proportion of their fixed and variable expenditures; and the effect of price cutting and price changes on their sales volume, costs, and capital structure. Care is taken to give the student a basis for determining what constitutes sound financial policy for any industrial enterprise.

*2½ semester hour credits*

### IN 15 *Sales Engineering*

This course in the principles of marketing is designed to acquaint the engineering student with the field of distribution. It includes a complete study of the functions of marketing, the institutions and middle-men of the market, a study of the trade channels used to market specific commodities, placing particular emphasis on industrial goods.

*2½ semester hour credits*

### IN 16 *Personnel Administration*

A consideration of what modern industry is doing in making an application of science to the obtaining and retaining of an effective and co-operative working force. The student studies thoroughly personnel administration systems now in use including the preparation and use of many forms among which are the occupational description, application, and interview blanks, promotion charts, wage scales, personnel control charts, etc. In addition, such subjects as wage payment plans, profit sharing, the training of workmen, workers' security plans and labor union, and management relationships are given attention.

*2 semester hour credits*

### IN 18 *Sales Engineering Problems*

This course is a continuation of IN 15. It presents problems and case material for use in making application of the principles of marketing industrial goods. Considerable time is devoted to the study of the regulation and control of marketing processes and institutions by governmental agencies and legislation.

*2½ semester hour credits*

### IN 21 *Contracts*

Preparation for a career as an industrial engineer demands an understanding of the fundamental legal principles upon which modern business transactions are based. The course in Contracts treats of the common law rules which underlie all branches of business law. The study of cases and decisions is supplemented by lectures and assigned readings in textbooks in order to develop a thorough understanding of the essentials of a valid contract such as offer and acceptance, consideration and form. The interpretation, operation and discharge of contracts are also considered. Such topics as agreement, competent parties, reality of consent, legality of object, sealed instruments and the Statute of Frauds are treated in detail.

*2 semester hour credits*

### IN 23 *Industrial Statistics*

The increasing use of statistics in business and in the field of industrial engineering makes essential an understanding of the fundamental methods and applications of statistical analysis. In this course the important topics considered include the following: the collection of statistical data; the presentation of statistical data in tabular and graphic forms; and the uses and construction of frequency distributions, averages, measures of dispersion and skewness, and the normal curve. Specific attention is given to the practical uses and limitations of statistics in the work of the industrial engineer.

*2½ semester hour credits*

### IN 24 *Industrial Statistics*

Time series analysis receives major consideration in this course. The standard procedures for measuring, separating, and eliminating trend, periodic, seasonal, cyclical, and irregular movements of time series are carefully studied. Each student is required to analyze a time series related to his co-operative employment or to a field of industry in which he has especial interest. The construction of index numbers, the use of currently published index numbers, correlation, and business forecasting complete the course content. Particular regard is paid to the internal use of statistics in industrial concerns.

*2½ semester hour credits*



### IN 25 *Industrial Plants*

This course includes the principles involved in the erection of an industrial plant, and the installation of its machines and equipment. Different types of structures are discussed with respect to details such as foundations, walls, columns, floors, windows, and so forth. Calculations and layout for a typical mill are carried out. Another problem consists of the calculation and layout of a machine shop which includes the power requirements and placement of machines, consideration being given to the optimum conditions of maximum production and the most efficient routing of a product.

*2½ semester hour credits*

### IN 26 *Industrial Plants*

This course, a continuation of IN 25, includes a problem on the heating and air conditioning of an industrial plant. The heating requirements in the winter and the cooling needs in the summer are calculated for a particular building. Another problem consists of the layout of a plant to serve a certain industry; determining the machines essential for the output of a given product; the power requirements for the plant, and the advisability of generating the power within the plant or purchasing it from outside; storage needs; arrangement of machines and material handling equipment; determination of belting sizes and shafting; and the cost of operation of the factory.

*2½ semester hour credits*

## Chemistry

PROFESSORS VERNON, STRAHAN, MCGUIRE, and ZUFFANTI; DR. LUDER; MESSRS. BROWN, MCKENZIE, GIELLA, DUBOIS, and HANSEN

### Ch 1 *General Chemistry*

A course designed for those who have had chemistry before entering college. The fundamental idea of matter and energy; the properties of gases, liquids, and solids; molecular weights; equations, atomic structure, classification of the elements; ionic reactions; and the chemistry of the non-metals are among the topics which are covered in the course. Two lectures, one recitation, and a three-hour laboratory period comprise the weekly schedule of instruction.

*4 semester hour credits*



## Ch 2 *Inorganic Chemistry*

A continuation of Ch 1 Inorganic Chemistry. Modern ideas covering the theory of solutions of electrolytes are discussed together with experimental facts. The chemistry of the metals is covered thoroughly, and time is devoted to an introduction to organic chemistry. The latter part of the course is given to qualitative analysis with particular emphasis on the laboratory work. The plan of instruction is identical with that of Ch 1.

*4 semester hour credits*

## Ch 3 *General Chemistry*

A course intended for those who have not had chemistry in high school. The content is similar to that of Ch 1, but the treatment is such that no prior knowledge of chemistry is necessary. Two lectures, one recitation, and a three-hour laboratory period comprise the weekly schedule of instruction.

*4 semester hour credits*

## Ch 4 *Inorganic Chemistry*

A continuation of Ch 3 with a course content and schedule of instruction similar to Ch 2.

*4 semester hour credits*

## Ch 9 *Qualitative Analysis*

The object of this course is to give the student knowledge of the various fundamental qualitative laws and principles. A portion of the time is devoted to the formulation of numerical terms which are essential to understanding mass law action, chemical equilibrium, ionic equilibria, solubility product, hydrolysis, and oxidation and reduction constants.

It not only furnishes a definite and exact working basis but leads, ultimately, to independent and original thinking, thus preparing the way to more difficult problems in chemical engineering. Little real intelligent progress can be made unless these theories are understood, properly appreciated, and correctly applied.

The lectures are supplemented by recitations and quizzes and outside assignments devoted to the solution of problems.

*2 semester hour credits*

## Ch 10 *Qualitative Analysis*

The essential features of the course are a system of lectures, recitations, and quizzes carefully co-ordinated with laboratory work. The object is to train the student in exact methods, with an attempt to make clear the reason for each operation and the

ability to apply them to the laws of chemical equilibrium, especially the principles relating to solubility, ionization, complex ion formation, and oxidation and reduction of substances in solution.

Special attention is given to methods that will provide for a reliable detection of a small quantity of any constituent in the presence of a large quantity of any other constituent.

A part of the course is a method of systematic analysis of getting substances into solution by solvent and fusion treatments.

The importance of exact method of qualitative detection can not be overestimated. It supplies the fundamental data upon which industrial operations may be successfully carried out.

*2 semester hour credits*

### *Ch 11 Qualitative Analysis Laboratory*

The object of the laboratory exercises is to cultivate scientific attitude and habit of thought, and to increase power of acquiring knowledge. The work permits the student to accurately observe and study the phenomena concerned with certain chemical changes of fundamental importance and to connect these observations with the theoretical discussions held in the lecture and recitation classes in inorganic chemistry.

Careful manipulations, thoroughness in observation, and accuracy in arriving at conclusions are required of each student. Neat and satisfactory notes will be considered an essential part of the work.

*1 semester hour credit*

### *Ch 12 Qualitative Analysis Laboratory*

The experiments in this course, illustrating the solubilities of various compounds, are so selected and logically arranged that they may later be combined to form a complete system of analysis.

In connection with each experiment, care is taken that the student understands the reactions and theory involved. The latest developments in qualitative tests are used frequently. From time to time unknown solutions and substances are given to the student for analysis to emphasize the practical aspects of the work.

This course also includes the reactions and separations of the anions, methods of solution, and actual qualitative analyses of various industrial products and naturally occurring materials.

*1 semester hour credit*

### *Ch 15 Quantitative Analysis*

It is the purpose of this course to give to the student a realization of the scientific development of quantitative methods. Each of the major operations such as weighing, measurement of volumes,

titration, filtration, ignition, and combustion, is considered from the standpoint of the theoretical principles involved, and with due consideration of the manipulative technique necessary.

This is followed by the combination of these operations and their application to actual analysis including a comprehensive study of volumetric methods and of the more elementary parts of gravimetric analysis.

As the correct calculation of analytical results is of no less importance than the actual procedures of analysis, a number of problems forms a very important part of the course.

*1 semester hour credit*

### *Ch 16 Quantitative Analysis*

This course, a continuation of Ch 15, is similarly conducted. After consideration of the more advanced parts of gravimetric analysis and of systematic mineral procedures, the remainder of the course consists of a critical discussion of common technical methods, including the standard ones for the analysis of steel, non-ferrous alloys, fuels, oils, gas, water, fertilizers, foods, etc.

*1 semester hour credit*

### *Ch 17 Quantitative Analysis Laboratory*

This is a laboratory course intended to illustrate by actual use the various analytical methods considered in Ch 15. After certain preliminary experiments designed to acquaint the student with the apparatus used; volumetric analysis, including acidimetry and alkalimetry, oxidation, reduction, and precipitation methods are taken up. This is followed by simple gravimetric analysis.

*2 semester hour credits*

### *Ch 18 Quantitative Analysis Laboratory*

This course includes not only the usual illustrative gravimetric determinations, but also electrolytic, electrometric, combustion, and optical methods.

In the latter half of the course actual industrial methods are used so that at its completion the students should be able to perform satisfactorily any ordinary analysis.

*2 semester hour credits*

### *Ch 31 Organic Chemistry I*

This course includes a study of the recognized basic principles of the aliphatic organic compounds. An attempt is made to present the material from a connected and understandable viewpoint by a study of the close relationship which exists between the various

classes of compounds. Considerable emphasis is placed on genetic charts and synthesis of typical classes of compounds, by which the class being studied is related to classes studied previously.

Some of the more important compounds are studied in detail. The industrial applications of many of the theoretical principles of the subject are considered in order to acquaint the student with the practical nature of organic chemistry.

*2 semester hour credits*

### *Ch 32 Organic Chemistry II*

This course is a continuation of Ch 31, but deals with the preparation and characteristic reactions of the aromatic organic compounds. Special attention is given to polymerization, diazotization, dyes, and the use of catalyst, nitration, and sulfonation.

A few of the more important hetrocyclic compounds are studied.

*2 semester hour credits*

### *Ch 33 Organic Chemistry Laboratory I*

This course consists of a selected number of preparations and includes the more important manipulations designed to teach the student the laboratory technique involved in organic chemical work such as fractional distillation, steam distillation, extraction, etc.

These preparations familiarize the student with the general types of chemical changes such as esterification, halogenation, nitration, reduction, diazotization, and saponification.

One of the important features of the course is to teach the student a definite method of keeping notes of his laboratory work, all detailed reactions, calculations, and also the answers to a set of questions on each experiment performed.

*1 semester hour credit*

### *Ch 34 Organic Chemistry Laboratory II*

This course is a continuation of Ch 33. The preparations in this course serve to acquaint the student with such types of chemical reactions as sulfonation, the Grignard reaction, the Perkins reaction, Skraup's synthesis, the Friedel-Crafts' reaction, and the preparation of dyes.

In addition to the manipulative techniques taught in Ch 33, this course introduces the use of vacuum distillations, fractional crystallization, and separations by physical and chemical means.

Laboratory notes and answers to questions are recorded as in Ch 33.

*1 semester hour credit*



### *Ch 35 Industrial Organic Chemistry*

An attempt is made to present in a systematic manner the principles and practice of the more important and well defined reactions in organic synthesis.

Attention is directed not only to the chemistry and products of reaction but equally to the contributing factors which lead to efficient operations. The course includes an examination of the reactants, an inquiry into the mechanism of the reaction, a knowledge of the chemical and physical factors involved, observations regarding the design and construction of equipment and, finally, a study of typical technical applications.

*2 semester hour credits*

### *Ch 36 Industrial Organic Chemistry*

This course is a continuation of Ch 35. An attempt is made to co-ordinate the study of fundamental principles of organic synthesis with the requirements of industrial plants.

The latter part of the course is devoted to a study of the synthesis of the terpenes and their genetic relationships.

*2 semester hour credits*

### *Ch 37 Organic Chemistry Laboratory III*

The purpose of this course is to familiarize the student with the chemical and physical tests used in qualitative organic analysis. A series of experiments, based on the classification or reactions of organic compounds, serves as a basis for the examination of simple liquid and simple solid compounds and the preparation of suitable derivatives of them.

This system makes possible the collection of sufficient data on each problem for a comprehensive written report. The student is placed on his own responsibility and is requested to use and acquaint himself with the chemical literature and standard reference books available on this subject in libraries.

*1½ semester hour credits*

### *Ch 38 Organic Chemistry Laboratory IV*

This course is a continuation of Ch 37 but is much broader in scope. It includes the examination of liquid and solid mixtures of two and three components each. This is followed by the analysis of one or more industrial organic compounds, depending on the time available.

A systematic procedure is employed in the separation, identification, and preparation of the derivatives of the mixtures. Library work and written reports are an essential part of this course.

*1½ semester hour credits*



### Ch 41 *Library Research Problems*

This course is intended to acquaint the chemical student with the constantly increasing volume of scientific literature pertaining to the engineering field. While intended primarily as preparatory to thesis work which follows, it furnishes also a very valuable tool for use in later industrial and scientific work.

After a brief outline of the entire field of scientific literature and a description of various methods of library procedure, the various available sources of scientific information are investigated. Original sources such as scientific journals, government publications, patents and manufacturers' catalogs are first considered. A survey of secondary sources follows, including a study of abstracting journals, reviews, bibliographies, handbooks, standard reference books, encyclopedias, etc. A series of individual library problems, in which the student is required to apply the information obtained in the classroom, forms a very important part of the course.

*1 semester hour credit*

### Ch 43 *Physical Chemistry I*

This course begins with a short resume of the field of physical chemistry, and its relationship to the other courses in chemistry and chemical engineering. Following this, atomic and molecular weights, and the properties of gases, liquids, solids, and non-ionized, ionized, and colloidal solutions are taken up. Throughout this course, as well as in Physical Chemistry Ch 44, quantitative methods are emphasized and the solving of a number of illustrative problems is required.

*2 semester hour credits*

### Ch 44 *Physical Chemistry II*

This course, which is similar in character to Physical Chemistry Ch 43, includes a consideration of the following topics: rates of reaction, homogeneous and heterogeneous equilibrium, and thermo-chemistry. From time to time industrial and technical applications are considered from the standpoint of physical chemistry, but in such a way as not to lose sight of the broad field of the subject.

*2 semester hour credits*

### Ch 45 *Physical Chemistry III*

This course, which is similar in character to the preceding ones, considers such portions of the fields of electrochemistry and thermodynamics as are of value to chemical engineers. The laboratory work which accompanies this and the succeeding course is designed not only to illustrate the work of the classroom but also to review that of the previous courses.

*2½ semester hour credits*

### Ch 46 Physical Chemistry IV

In this course which is of a different nature from those which precede it, the subjects of photochemistry, radioactivity, periodic classification and electrical theory of matter are taken up and as much of the elements of the quantum theory as the time available will allow.

*2½ semester hour credits*

## Drawing

PROFESSORS TOZER AND MESERVE; MESSRS. CUSHMAN, DEVINE, SANDERSON, AND MCPHEE

### D 1 Graphics I

This course comprises a complete study of shape description in both orthographic and pictorial form. It provides a thorough foundation for the study of working drawings. The work is laid out according to the following divisions; care and use of instruments, lettering, geometric constructions including the conic, involute and cycloidal curves, orthographic projection including multiplanar and axonometric drawing, oblique and perspective projection, technical freehand sketching, development, screw-threads, sectioning, dimensioning, and tracing.

*3 semester hour credits*

### D 2 Graphics II

This course comprises a complete study of the theory of projection. It is designed to develop the power to visualize and solve practical problems in spacial relations. In addition to point, line, and plane problems, the course includes a study of shadows, solid intersections, developable and warped surfaces.

*3 semester hour credits*

### D 3 Engineering Drawing

A course similar to D 4 except that it is designed to be of particular value to students of electrical engineering.

*2 semester hour credits*

### D 4 Machine Drawing

Detail working drawings of machine parts and assembly drawings of simple machines are made in accordance with best commercial practice. Such simple phases of mechanism as are necessary to a complete understanding of machine drawing are included in the course.

*2 semester hour credits*

## Economics

PROFESSOR LAKE

### *Ec 21 Economics*

After an analysis of the main characteristics of our modern economic order, attention is turned to the fundamental economic laws and principles governing the production of economic goods, the organization of business enterprise, money, banking, the business cycle, control of the price level, and international trade. Case material is used freely.

*2 semester hour credits*

### *Ec 22 Economics*

A continuation of Ec 21. The first part of the course deals with the principles of price determination under competitive and monopolistic conditions, and the principles underlying the distribution of wealth and income into wages, interest, and profits. Consideration is then given to the major aspects of the economic problems of agriculture, public utility regulation, labor, consumption, public finance, and economic reform.

*2 semester hour credits*

## English

DEAN MELVIN; PROFESSORS HOLMES AND MARSTON; DR. REYNOLDS;  
MESSRS. NORVISH AND HOFFMANN

### *E 1 English I*

A course in composition with especial emphasis on exposition. Principles of grammar and rhetoric are reviewed rapidly but thoroughly. Contemporary essays are studied both for their value as models and as enrichment of the student's background. Themes on subjects largely drawn from or related to the student's life and study are a weekly requirement.

*3 semester hour credits*

### *E 2 English I*

A continuation of E 1. Toward the end of the term a careful study is made of letter writing.

*3 semester hour credits*

## Engineering Conference

PROFESSORS NIGHTINGALE, TOWLE, EVERETT, OBERG AND MORGAN

### C 7 Engineering Conference

This course is designed to bring about analytical thinking and systematic planning of the "after-graduation-employment" problem. It is conducted as an open discussion class by the Department of Co-operative Work. Each Co-ordinator has in his class those students who have been placed and supervised on co-operative work by him. Each student analyzes and applies to himself as the "product" the fundamental principles of merchandizing. Prominent men who are leaders in the fields of employment counselling, business, or engineering present the employers' viewpoint. Thus the graduating seniors are brought face to face during the year with one of the most important and perplexing problems of life, namely, how to "sell their services," thereby aiming to bring a co-ordinated training of theory and practice to a logical conclusion.

*½ semester hour credit*

### C 8 Engineering Conference

This course is the sequel to C-7 and consists of the practical application of the techniques of job-getting which have been analyzed and discussed in that course. It is conducted on a conference rather than on a class basis, the major portion of the time being devoted to the planning and writing of letters to and securing interviews with prospective employers. It is intended that this course will culminate in the attainment by each student of his after-graduation job.

*½ semester hour credit*

## Geology

PROFESSOR PUGSLEY

### Gy 1 Geology

A study of earth movements and various terrestrial applications of solar energy. Lectures on fundamental general facts as to origin and movements of the earth, weathering, work of winds, underground and surface waters, glaciers and the glacial period, lakes and swamps, and vulcanism.

*2 semester hour credits*



## Gy 2 Geology

Course Gy 1 is continued with such topics as mountain formation; oceanic life, atmosphere touching upon meteorology. A considerable portion of time is given to the study of igneous, sedimentary and metamorphic rocks, supplemented by laboratory and field work.

*2 semester hour credits*

## Mathematics

PROFESSORS SPEAR and HASKINS; DR. LACOUNT; MESSERS. SEWELL, DEAN, COMBELLACK, and HEILPRIN

### M 1 College Algebra

The study of algebra is scheduled to begin with the solution of the quadratic equation, simultaneous quadratics, and equations in quadratic form. However, a rapid although thorough review of the fundamentals of algebra precedes this. This solution of the quadratic is followed by a detailed study of the theory of exponents. Then follow radicals, series, variation, inequalities, and the elementary principles of the theory of equations. Considerable time is given to plotting and the use of graphs in the solution of equations. The elementary theory of complex numbers is also covered.

*3 semester hour credits*

### M 3 Trigonometry

This is a complete course in trigonometry and should enable the student to use all branches of elementary trigonometry both in the solution of triangles as well as in the more advanced courses where the knowledge of trigonometry is essential. Some of the topics covered are: the trigonometric ratios; inverse functions; goniometry; logarithms; circular measure; laws of sines; cosines, tangents, half-angles; solution of oblique and right triangles; transformation and solution of trigonometric and logarithmic equations. Considerable practice in calculation of practical problems enables the student to apply his trigonometry to problems arising in engineering practice at an early stage. Additional work, graphical and algebraic, is done with the complex number, introducing DeMoivre's theorem, and the exponential form of the complex number.

*2 semester hour credits*

### M 4 *Analytic Geometry and Introduction to Calculus*

This being a basic course in preparation for any further study of mathematics, it requires a thorough knowledge of the fundamentals of algebra. The course covers cartesian and polar coordinates; graphs; the equations of simpler curves derived from their geometric properties; thorough study of straight lines, circles, and conic sections; intersections of curves; transformation of axes; plotting and solution of algebraic equations of higher order and of exponential, trigonometric, and logarithmic equations; loci problems. The general equation of the second degree is thoroughly analyzed in the study of conic sections. Some time is devoted to curve fitting from empirical data.

Explicit and implicit functions, dependent and independent variables, some theory of limits, continuity and discontinuity are given special attention both from the algebraic as well as geometric points of view. Some theorems on the infinitesimal are introduced and a study is made of infinity and zero as limits. Relative rates of change, both average and instantaneous, and the meaning of the slope of a curve follow. The differential and the derivative as applied to algebraic functions with the geometric interpretation is then studied. Simple applications with interesting practical problems help to develop the interest here and lay a solid foundation for the study of the calculus. The introduction of the differential at the same time with the derivative helps considerably to bridge the large gap which usually exists when the student passes from the study of the elementary analytic geometry to the infinitesimal of calculus.

*5 semester hour credits*

### M 5 *Differential Calculus*

The differential is introduced and defined at the outset of the course together with the derivative, geometric and practical illustrations are given of both, and both are carried along throughout the course. The work in the course consists of differentiation of algebraic, trigonometric, exponential, and logarithmic functions, both explicit and implicit; slopes of curves, maxima and minima with applied problem; partial differentiation; derivatives of higher order; curvature; points of inflection; related rates; velocities, acceleration; expansion of functions; series. Although the subject matter deals with considerable theory, constant sight is kept of the practical application of the theory. The geometric interpretation of every new subject is carefully defined and problems are continually solved dealing in practical applications of the theory in geometry, physics, and mechanics.

*3 semester hour credits*

### M 6 *Integral Calculus*

This is a continuation of Calculus M 5, and deals with integration as the inverse of differentiation as well as the limit of summation. The topics covered are methods of integration; use of integral tables; definite integrals; double and triple integrals; areas in rectangular and polar co-ordinates; center of gravity; moment of inertia; length of curves; volumes of solids; areas of surfaces of revolution; volumes by triple integration; practical problems in work, pressure, etc., depending on the differential and integral calculus for solution, solution of simpler differential equations.

*3 semester hour credits*

### M 7 *Differential Equations*

The elementary theory of differential equations and the solution of certain ordinary and partial differential equations is offered here as a general course in mathematics. Although principally a problem course in solving differential equations, properties of the equations and of their solutions are deduced, and applications to the various fields of engineering, particularly electrical engineering, are analyzed.

*2½ semester hour credits*

## *Physics*

PROFESSORS MUCKENHOUPT, COOLIDGE, JOHNSON, and WELCH;  
MESSRS. BELYEA, HILLI and COOK

### P 1 *Physics I*

A course in the study of the fundamental principles of the mechanics of physics. Some of the topics covered are simple harmonic motion, uniformly accelerated motion, friction, work, energy, power, fluid pressure, angular velocity, centripetal force, equilibrium under the action of a series of parallel forces and equilibrium under the action of concurrent forces.

*3 semester hour credits*

### P 2 *Physics I*

This is a thorough course in magnetism and electricity covering all the details within the scope of standard college texts on these subjects. All lectures are illustrated by means of lantern slides, motion pictures, and special apparatus.

*3 semester hour credits*

### *P 3 Physics II*

A course in the study of wave motion, sound, and light. Molecular mechanics and other fundamental principles of physics are stressed at the beginning.

All lectures in physics are accompanied by appropriate demonstrations.

*2 semester hour credits*

### *P 4 Physics II*

The topics studied are thermometry, expansion of solids, liquids, and gases; calorimetry; change of state including latent heat of fusion and vaporization (sublimation); triple point diagram; conduction and radiation; and the mechanical equivalent of heat.

*2 semester hour credits*

### *P 5 Physics Laboratory*

This course consists of experiments in mechanics, light, electricity, and magnetism performed by each student supplementing the lecture and class room work of courses P 1, P 2, and P 3. The experiments on mechanics include: the use of the vernier, micrometers and spherometer, the calculation of true weights, the funicular polygon, gyroscopic motion, simple harmonic motion and the determination of areas by means of the planimeter. Other experiments in this course include plotting the magnetic field about a bar magnet and the determination of the pole strength and field strength of the magnet, the position of images in a combination of lenses and one experiment on electrostatics.

*1 semester hour credit*

### *P 6 Physics Laboratory*

A continuation of the experiments started in P 5 including experiments on sound and heat. Some of the experiments of this course are: the modulus of elasticity, the determination of the velocity of sound, the coefficient of cubical expansion of mercury, the air thermometer, the determination of the mechanical equivalent of heat, the study of the maximum and minimum thermometers, and the use of the spectroscope in the study of the bright line and solar spectra. The experiments of this course supplement the class work of courses P 1, P 2, P 3, and P 4.

*1 semester hour credit*



## Physical Education

PROFESSORS PARSONS and TATTON; MESSRS. DUNN, GALLAGHER,  
LAVEAGA, and HULTGREN

### PE 3-4 Physical Training

All first year students are required to take Physical Training. Health, strength, and vitality do not come by chance, but by constant attention to those factors involved in their development. It is very essential for the student to acquire good habits of life.

The work in the course includes a formal calisthenic program, special exercise classes for the correction of postural defects, participation in the regular athletic program, including baseball, basketball, hockey, football, track, and many types of informal games. All members of the class are also required to learn to swim.

Students wishing to be excused from Physical Training because of physical defects are required to present a petition to the faculty supported by a physician's certificate.

### PE 2 Hygiene

One class hour a week is devoted to the study of information closely related to the Physical Training work and to personal and mental hygiene. For each class lecture, the student is assigned at least one hour of outside study based on the required textbook. The course includes enough of the fundamentals of physiology and anatomy to enable the student to understand such parts of the course as require some knowledge of these subjects.

*1 semester hour credit*

## Social Sciences

PROFESSORS ESTES and HAVICE

### Ps 1-A Orientation Problems

This course is designed to make the entering student explicitly aware of those facts, principles, and techniques which are significantly related to the maintenance of his intellectual efficiency and mental health in the college environment. Lectures, assigned reading, and individual conferences.

### *S 1 Introduction to Sociology*

In presenting a survey of the origins and sources of human society, this study provides orientation for the course in principles and problems which follows. The several theories of organic evolution are discussed. The antiquity of man and basic anthropological data are considered. The racial and ethnic groupings of man are then studied in the light of biological, geographical, and cultural factors.

*2 semester hour credits*

### *S 2 Principles of Sociology*

Facts and principles basic to a general knowledge of the field of sociology are presented. The origins, forms, and forces of human associations are discussed. Consideration is given the several leading schools of sociological thought. The course is designed to meet the needs of the student who desires a survey of the subject.

*2 semester hour credits*

## *Elective Liberal Courses*

### *B 1 General Zoology*

An introductory course dealing with the basic principles of zoology. A survey of the main types of animals; their classification, structure, life history, distribution; relation of animals to man; animals that furnish food and clothing, that are injurious to man himself, to his crops, or his domestic animals. The principles of fresh water biology are stressed. The laboratory work illustrates the lectures.

PROFESSOR MIROYIANNIS

*4 semester hour credits*

### *B 2 General Botany*

An introductory course dealing with the basic principles of botany. A general survey of the more important plant types throughout the vegetable kingdom; their classification, structure, life history, distribution, and economic value. The principles of fresh water biology are emphasized. The fundamentals of plant physiology are stressed. The laboratory work illustrates the lectures.

PROFESSOR MIROYIANNIS

*4 semester hour credits*

### E 19 *Shakespeare*

An introductory college reading course in Shakespeare in which the emphasis will be placed upon character study, development of plot, and interpretation.

Four plays: *Henry IV, Part I*, *Romeo and Juliet*, *Much Ado About Nothing*, and *King Lear* will be read in class; one play, probably either *Henry V* or the *Tempest*, will be assigned for outside reading.

The purpose of the course is not only to develop in the student an appreciation of Shakespeare but also to train him in sound habits of reading.

DEAN MELVIN

2 semester hour credits

### E 33 *The Modern Novel*

This course is intended to give the student training and practice in the reading of the novel in English. It includes a brief account of the origin and development of the novel as a fictional form, and a study of the technique of character portrayal, plot construction, setting, and theme. Four novels are assigned for reading and analysis.

PROFESSOR HOLMES

2 semester hour credits

### GA 25 *History of Architecture*

This course is designed to cultivate an understanding and appreciation of the principal architectural monuments from the earliest times up to the 16th century A.D. This includes a study of the architecture of Egypt and Mesopotamia, Greece and Rome, the Medieval period, and the Italian Renaissance.

Lectures are illustrated by lantern slides and the work of the course includes textbook and collateral readings, regular quizzes and examinations, and some study at nearby museums.

PROFESSOR MESERVE

2 semester hour credits

### Gv 5-A *American Constitutional Law*

This course contemplates a brief study of the history of constitutional government from its origin in the struggle in England between King and parliament over the taxing power; the continuation of that struggle between the colonial assemblies and the parliament; the formation of the confederation of the states; the weaknesses of the confederation that rendered it inadequate; conditions that made it necessary to bring about "a more perfect union"; how the national constitution was made conferring all necessary powers upon the national government and making the constitution the supreme law of the land.

A brief study of political and legal science developed through the critical consideration of cases "selected in part for their historical value but chiefly to provide, in the language of the Supreme Court a maximum of constitutional principles in a minimum of time." The presentation in a condensed form of the fundamental law of the state and nation together with the rules and decisions which have developed and accumulated in the construction and application of constitutional provisions.

PROFESSOR BRUCE

*2 semester hour credits*

## Gy 11 Geology

(Not Open to Civil Engineering Students)

This is a study of earth movements and the various terrestrial applications of solar energy. The more important geological processes — erosion, sedimentation, deformation, and eruption — are taken up and discussed. The course includes lectures on the broader structural features of the earth's crust and the application of the principles of structural geology to practical engineering problems.

PROFESSOR PUGSLEY

*2 semester hour credits*

## M 14 History of Mathematics

Beginning with a discussion of how primitive man may have developed the concept of number, the course traces the development of the various branches of mathematics with which a student studying calculus is already familiar. Special attention is given to the social factors that influenced these developments as well as to a study of the personalities, lives, and contributions of the outstanding mathematicians up to the time of Gauss.

MR. SEWELL

*2 semester hour credits*

## Ph 1 Philosophy

After surveying the nature, purpose, and value of philosophy, this course considers such basic principles as the following: concepts of reality; the nature of space, time, and relativity; theories of knowledge; the nature of mind; and the meaning of existence. The course is designed to train the student to think philosophically, as well as to acquaint him with data in the field.

PROFESSOR HAVICE

*2 semester hour credits*



## Ps 25 Principles of Psychology

An introductory survey of those methods and findings in psychology which are of practical importance in business and industry. The topics which will be considered include individual differences, personality, motivation, leadership, morale, propaganda.

PROFESSOR ESTES

2 semester hour credits

### *Thesis*

Theses are not required of candidates for the bachelor's degree. Certain students, who have demonstrated marked ability in the field of research, may be permitted to substitute a thesis for one or more courses of the senior year.

By "thesis" is meant an essay involving the statement, analysis, and solution of some problem in pure or applied science. Its purpose is to demonstrate a satisfactory degree of initiative and power of original thought and work on the part of each candidate for an engineering degree.

The subject of the thesis is to be decided in conference between the candidate and that faculty member of the professional department to whom he is assigned for supervision in thesis work; final approval, however, resting with the head of the department. The subject may be one of structural design, research, testing, study of a commercial process, etc., but in no case will a mere resumé of prior knowledge and/or discussion of the present state of the matter be acceptable. This, it is true must normally be made, but in addition thereto there must be a certain amount of work planned and executed, aimed towards the extension of the present field of information regarding the subject chosen.

In many cases the student presents an individual thesis. However, in nearly equal number, acceptable subjects will be found necessitating the co-operation of at least two men, either of the same or sometimes of different professional departments. In such cases, each man is primarily responsible for a certain part of the work, while also making himself wholly familiar with the entire problem; and the completed thesis must show clear evidence of the evenly-balanced co-operation and labor of the men concerned.

The completed thesis will be examined for acceptance or rejection from the technical viewpoint by the professional departments interested, and then forwarded to the Secretary of the Day Division; final approval of the thesis resting with the Dean.

Upon acceptance, the thesis becomes the property of the University, together with all apparatus and material used in connection therewith, except that hired or borrowed, or originally the personal property of the candidate. It is not to be printed, published, nor in any other way made public except in such manner as the professional department and the Dean shall jointly approve.

Frequently thesis subjects may be chosen on problems arising in the plant where the student is employed at co-operative work. Employers are usually glad to consult with the student in the selection of the subject and the subsequent development of the thesis.

When theses are conducted in this manner, it is understood that the employer is not expected by the University to assume any expense of the thesis nor to furnish any supplies or equipment to be used in the development of the thesis other than those which he may consider it advisable and desirable to place at the disposal of the students. The regulations governing the use of laboratories and buildings of the co-operating firms will vary in practically all cases and each student must naturally be governed definitely by the regulations existing at the plant where the thesis is to be conducted.

It is understood that the thesis work must not in any way interfere with the regular required co-operative work and must be done during hours distinctly outside of regular co-operative work hours unless special request is made by the co-operating firm for some other arrangement.

Theses conducted in conjunction with co-operating firms must be submitted in duplicate, one copy to be presented by the Dean to the co-operating employer.

For all further information, the candidate for the degree is referred to the "Directions for Theses," which he may obtain from his professional department at the end of his junior year.

## NORTHEASTERN UNIVERSITY

*College of Engineering**Courses of Instruction*

1939-1940

(The University reserves the right to withdraw any course in which there is insufficient enrolment.)

Course Number	Course	Semester Hours
<b>CHEMICAL ENGINEERING</b>		
Ch E 21	Chemical Engineering I. ....	2
Ch E 22	Chemical Engineering II. ....	1½
Ch E 23	Chemical Engineering III. ....	3
Ch E 24	Chemical Engineering IV. ....	3
Ch E 25	Industrial Chemistry. ....	1
Ch E 26	Industrial Chemistry. ....	1
Ch E 27	Chemical Plant Design. ....	3
Ch E 28	Chemical Plant Design. ....	3
Ch E 29	Chemical Engineering Laboratory. ....	1½
Ch E 30	Chemical Engineering Laboratory. ....	2½
<b>CHEMISTRY</b>		
Ch 1	General Chemistry. ....	4
Ch 2	Inorganic Chemistry. ....	4
Ch 3	General Chemistry. ....	4
Ch 4	Inorganic Chemistry. ....	4
Ch 9	Qualitative Analysis. ....	2
Ch 10	Qualitative Analysis. ....	2
Ch 11	Qualitative Analysis Laboratory. ....	1
Ch 12	Qualitative Analysis Laboratory. ....	1
Ch 15	Quantitative Analysis. ....	1
Ch 16	Quantitative Analysis. ....	1
Ch 17	Quantitative Analysis Laboratory. ....	2
Ch 18	Quantitative Analysis Laboratory. ....	2
Ch 31	Organic Chemistry I. ....	2
Ch 32	Organic Chemistry II. ....	2
Ch 33	Organic Chemistry Laboratory I. ....	1
Ch 34	Organic Chemistry Laboratory II. ....	1
Ch 35	Industrial Organic Chemistry. ....	2
Ch 36	Industrial Organic Chemistry. ....	2
Ch 37	Organic Chemistry Laboratory III. ....	1½
Ch 38	Organic Chemistry Laboratory IV. ....	1½
Ch 41	Library Research Problems. ....	1
Ch 43	Physical Chemistry I. ....	2
Ch 44	Physical Chemistry II. ....	2
Ch 45	Physical Chemistry III. ....	2½
Ch 46	Physical Chemistry IV. ....	2½

*Courses of Instruction*

Course Number	Course	Semester Hours
<b>CIVIL ENGINEERING</b>		
CI 3	Surveying I.....	1½
CI 4	Surveying II.....	2½
CI 5	Surveying I, F. & P.....	1
CI 6	Surveying II, F. & P.....	1
CI 7	Curves and Earthwork I.....	2
CI 8	Curves and Earthwork II.....	2
CI 9	Curves and Earthwork I, F. & P.....	1
CI 10	Curves and Earthwork II, F. & P.....	1
CI 11	Hydraulics.....	2½
CI 12	Hydraulics.....	2
CI 15	Theory of Structures.....	3
CI 16	Theory of Structures.....	3
CI 20	Advanced Surveying.....	2
CI 21	Sanitary Engineering I.....	2
CI 22	Sanitary Engineering II.....	2
CI 23	Engineering Structures.....	3
CI 24	Engineering Structures.....	3
CI 25	Concrete.....	2
CI 26	Concrete.....	2
CI 27	Concrete Design.....	1
CI 28	Concrete Design.....	1
CI 29	Structural Design.....	2
CI 30	Structural Design.....	2
CI 31	Highway Engineering.....	2
CI 32	Highway Engineering.....	2
<b>CO-ORDINATION</b>		
C 7	Engineering Conference.....	½
C 8	Engineering Conference.....	½
Ps 1-A	Orientation Problems.....	0
<b>DRAWING</b>		
D 1	Graphics I.....	3
D 2	Graphics II.....	3
D 3	Engineering Drawing.....	2
D 4	Machine Drawing.....	2
<b>ECONOMICS</b>		
Ec 21	Economics.....	2
Ec 22	Economics.....	2



### Courses of Instruction

Course Number	Course	Semester Hours
<b>ELECTRICAL ENGINEERING</b>		
EL 1	Electrical Engineering I. ....	2
EL 2	Electrical Engineering I. ....	2
EL 5	Electrical Machinery. ....	4
EL 6	Electrical Measurements. ....	2½
EL 9	Electrical Engineering II. ....	1½
EL 10	Electrical Engineering II. ....	2
EL 11	Electrical Engineering Laboratory. ....	1
EL 12	Electrical Engineering Laboratory. ....	1
EL 13	Electrical Measurements I. ....	2½
EL 14	Electrical Measurements II. ....	2
EL 17	Electrical Engineering III. ....	2
EL 18	Electrical Engineering III. ....	2
EL 19	Electrical Testing Laboratory. ....	2
EL 20	Electrical Testing Laboratory. ....	2
EL 21	Electrophysics. ....	1
EL 22	Electrophysics. ....	2
EL 23	Electrical Measurements Laboratory. ....	2
EL 24	Advanced Measurements Laboratory. ....	2
EL 25	Electrical Engineering IV. ....	3
EL 26	Electrical Engineering IV. ....	3
EL 27	Advanced Electrical Engineering Lab. .	2
EL 28	Advanced Electrical Engineering Lab. .	2
EL 29	Electrical Engineering V-A. ....	2½
EL 30	Electrical Engineering V-A. ....	2½
EL 31	Electrical Engineering V-B. ....	2½
EL 32	Electrical Engineering V-B. ....	2½
EL 33	Advanced Experimental Investigations	2
EL 34	Advanced Experimental Investigations	2
<b>ENGLISH</b>		
E 1	English I. ....	3
E 2	English I. ....	3
<b>GEOLOGY</b>		
Gy 1	General Geology. ....	2
Gy 2	General Geology. ....	2
<b>INDUSTRIAL ENGINEERING</b>		
IN 3	Production Processes I. ....	2½
IN 4	Production Processes II. ....	1½
IN 5	Industrial Management I. ....	2
IN 6	Industrial Management II. ....	2

*Courses of Instruction*

Course Number	Course	Semester Hours
<b>INDUSTRIAL ENGINEERING (Cont.)</b>		
IN 7	Industrial Accounting.....	2
IN 8	Industrial Accounting.....	2
IN 9	Cost Accounting.....	2½
IN 10	Cost Accounting.....	2½
IN 11	Methods Engineering.....	2½
IN 14	Industrial Finance.....	2½
IN 15	Sales Engineering.....	2½
IN 16	Personnel Administration.....	2
IN 18	Sales Engineering Problems.....	2½
IN 21	Contracts.....	2
IN 23	Industrial Statistics.....	2½
IN 24	Industrial Statistics.....	2½
IN 25	Industrial Plants.....	2½
IN 26	Industrial Plants.....	2½
<b>LIBERAL ELECTIVES</b>		
B 1	Zoology.....	4
B 2	Botany.....	4
E 19	Shakespeare.....	2
E 33	The Modern Novel.....	2
GA 25	History of Architecture.....	2
GV 5-A	American Constitutional Law.....	2
Gy 11	Geology.....	2
M 14	History of Mathematics.....	2
Ph 1	Introduction to Philosophy.....	2
Ps 25	Principles of Psychology.....	2
<b>MATHEMATICS</b>		
M 1	College Algebra.....	3
M 3	Trigonometry.....	2
M 4	Analytic Geometry and Introduction to Calculus.....	5
M 5	Differential Calculus.....	3
M 6	Integral Calculus.....	3
M 7	Differential Equations.....	2½
<b>MECHANICAL ENGINEERING</b>		
ME 1	Mechanism.....	3
ME 3	Mechanism of Machines.....	2
ME 15	Industrial Plants.....	2½
ME 16	Industrial Plants.....	2½
ME 20	Applied Mechanics (Statics).....	3
ME 21	Applied Mechanics (Kinetics).....	3
ME 22	Strength of Materials.....	3
ME 23	Strength of Materials.....	2

*Courses of Instruction*

Course Number	Course	Semester Hours
<b>MECHANICAL ENGINEERING (Cont.)</b>		
ME 24	Advanced Mechanics.....	2
ME 29	Heat Engineering (Power Plant Equipment).....	2
ME 30	Heat Engineering (Thermodynamics)...	3
ME 31	Heat Engineering.....	2½
ME 32	Heat Engineering.....	2½
ME 33	Refrigeration.....	2
ME 34	Steam Turbines.....	2
ME 35	Heat Engineering.....	2
ME 36	Heat Engineering.....	2½
ME 37	Diesel Engines.....	2
ME 38	Diesel Laboratory.....	2
ME 39	Engine Dynamics.....	2½
ME 40	Aerodynamics.....	2
ME 42	Heating and Air Conditioning.....	2
ME 44	Power Plant Engineering.....	2½
ME 45	Air Conditioning Design I.....	2½
ME 46	Air Conditioning Design II.....	2½
ME 48	Air Conditioning Laboratory.....	2
ME 51	Machine Design.....	3
ME 52	Machine Design.....	3
ME 54	Diesel Engine Design.....	2½
ME 61	Mechanical Engineering Laboratory...	2
ME 62	Mechanical Engineering Laboratory...	2
ME 63	Mechanical Engineering Laboratory...	2½
ME 69	Testing Materials Laboratory.....	1½
ME 70	Testing Materials Laboratory.....	1½
ME 73	Aircraft Structures.....	2
ME 74	Aeronautical Laboratory.....	2
ME 76	Aircraft Engine Design.....	2½
<b>PHYSICAL EDUCATION</b>		
PE 2	Hygiene.....	1
PE 3	Physical Training.....	0
PE 4	Physical Training.....	0
<b>PHYSICS</b>		
P 1	Physics I.....	3
P 2	Physics I.....	3
P 3	Physics II.....	2
P 4	Physics II.....	2
P 5	Physics Laboratory.....	1
P 6	Physics Laboratory.....	1
<b>SOCIOLOGY</b>		
S 1	Introduction to Sociology.....	2
S 2	Principles of Sociology.....	2

*Distribution of Students in College of Engineering*  
*By States and Countries*  
1938-1939

Massachusetts . . . . .	1,104
Connecticut . . . . .	71
New York . . . . .	46
Maine . . . . .	41
Vermont . . . . .	23
New Hampshire . . . . .	14
New Jersey . . . . .	8
Pennsylvania . . . . .	7
Rhode Island . . . . .	4
Kansas . . . . .	1
North Carolina . . . . .	1
Tennessee . . . . .	1
Territory of Hawaii . . . . .	1
Total . . . . .	<u>1,322</u>



# Directory of Students

## COLLEGE OF ENGINEERING

### 1938-1939

#### Freshmen

NAME	HOME ADDRESS
Adams, Frank P., Jr.	Dorchester
Aitken, Harry J., Jr.	Quincy
Aliberte, Fernando	Everett
Allen, George H.	Auburndale
Ariewitz, Daniel	Norwich, Connecticut
Aronson, Howard	Mattapan
Ashline, Robert D.	Fitchburg
Askowith, Harold M.	Dorchester
Aspin, Frank	New Bedford
Awen, Edward P.	Lowell
Baer, Albert G.	Longmeadow
Bajoras, George V.	Waterbury, Connecticut
Bakanauskas, Sam	Haverhill
Baker, Irving E.	Woolwich, Maine
Barbadoro, Nelson	New Haven, Connecticut
Barth, Milton S.	Mattapan
Bassnett, Arthur J., Jr.	Saco, Maine
Bennert, Malcolm O.	Shawsheen
Bergson, Benjamin J.	Brighton
Berkland, Irving T.	Norwood
Bernstein, Irwin M.	Roxbury
Besse, Neil K.	Fairhaven
Bevis, Edgar A.	Newton Highlands
Blackman, Kay S.	Findley Lake, New York
Blake, Martin	Roxbury
Blake, William L.	Boothbay Harbor, Maine
Bloom, Melvin J.	Lynn
Bodnar, Walter	Roxbury
Boldizar, Robert J.	Norwalk, Connecticut
Bolivar, Carleton E.	Winchester
Bolivar, Harold R.	Medford
Bolton, Foster K.	Cabot, Vermont
Bong, Walter A.	Springfield
Bonia, Walter J.	North Revere
Borofsky, Arnold	Dorchester
Boshar, John	Lawrence
Boston, John A., Jr.	Swampscott
Bosworth, Gordon A.	Foxboro
Bourget, George V.	Arlington
Bowry, Donald W.	South Sudbury
Brady, Francis L., Jr.	Swampscott
Brown, Allan R.	Beverly
Brown, Robert H.	Chatham
Brown, Warren J.	North Billerica
Browne, Frederick J.	Revere
Burke, Edward L.	Arlington
Burrows, George R.	Braintree
Bush, Chester W.	Hyde Park
Bushloff, Frank	Dorchester

NAME	HOME ADDRESS
Cain, Harold A., Jr.	Quincy
Calarese, John B.	Boston
Callahan, Robert, Jr.	Memphis, Tennessee
Cameron, Duncan H., Jr.	Roxbury
Capone, Joseph, Jr.	Roslindale
Carine, Eugene J.	Brighton
Caris, Robert B.	East Orange, New Jersey
Carito, William A.	Boston
Carlson, Fridolf W.	North Easton
Carlson, Quinton L. R.	North Easton
Carville, Richard E.	West Roxbury
Cassarino, Sebastian J.	Boston
Chase, Walter M., Jr.	Needham
Chumack, Alexander	Peabody
Church, Herbert S., Jr.	Natick
Clark, Walter D.	Brighton
Cohen, Robert	Dorchester
Cohen, Sidney	Dorchester
Cole, Harvey M.	North Weymouth
Conary, Douglas F.	Medford
Consolazio, George A.	Cambridge
Cooper, Leonard P., Jr.	Bridgewater
Coughlin, Kenneth J.	Stoneham
Cox, John W.	Fitchburg
Crompton, Morris H., Jr.	New Bedford
Crook, Sidney L.	Newton
Curtin, Francis D.	Winchendon
Damascus, John G.	Boston
Dana, Elmer G.	Canton
Dane, Norman B.	Marblehead
Darling, Frederick W.	Dorchester
Darling, Robert C.	Brockton
Davin, William N.	Cambridge
Dean, Harold L.	South Lincoln
Dennis, Richard	Revere
DeSantis, Joseph	Malden
Dewhurst, Herbert A.	Squantum
DiCicco, Valentino	Brockton
Dicklow, James A.	New London, Connecticut
Dignes, William T.	Boston
DiPietro, Paul A.	Somerville
Divoll, Richard L.	Concord
Doherty, John E.	Boston
Donahue, W. Kenneth J.	Malden
Donlan, Raymond J.	Waltham
Drake, Weldon W.	Boston
Durup, Paul C.	Wollaston
Eagan, Earl F.	Quincy
Eklund, Ernest A.	Ashland
Elliott, Robert E.	Laconia, New Hampshire
Emerson, John E.	Rowley
Eng, Walter	Boston
Ericson, Harry L.	Manchester
Estelle, Weems E.	Rockville, Connecticut
Feldman, Elihu L.	New Haven, Connecticut
Ferguson, John W.	Belmont
Fine, Harold E.	Malden
Finnegan, Carl L.	Dorchester
Fish, Joseph N., Jr.	Boston

NAME	HOME ADDRESS
Fitzpatrick, John F.	Foxboro
Flanigan, George W.	Braintree
Fleischer, Richard H.	Quincy
Flynn, Thomas H.	Peabody
Forbes, Arthur E.	Holliston
Ford, Richard J.	Waltham
Fradsham, Edward J.	Boston
Francis, Thomas E.	North Adams
Franzosa, John C.	Somerville
Frutkoff, Carl M.	Boston
Gaetani, Robert A.	Weymouth
Gallo, Patrick	Quincy
Gately, James E., Jr.	Belmont
Gelewitz, Edmund W.	Boston
George, Ralph E.	Medford
Getchell, Robert	Randolph
Getchell, Walter A., Jr.	Randolph
Giddings, Arthur L.	Milton
Gilman, Frank A.	North Chelmsford
Goldbeck, Earle	New Hartford, Connecticut
Goldstein, Milton	East Boston
Gomez, Paul C.	Brighton
Goodie, Clifford B.	Wollaston
Goodman, Philip D.	Roxbury
Goodof, William J.	Dorchester
Green, Alan	Watertown
Green, Milton	Boston
Grinkis, Joseph S.	Sterling Junction
Grove, Arthur H.	Brookline
Grover, Frederick R.	Rockport
Hagberg, Edward A.	Lynn
Hall, Albert B.	Brattleboro, Vermont
Hallett, Allen H.	Wellesley Farms
Hamilton, C. Browning	Belmont
Hamilton, Herbert A., Jr.	Melrose
Hankinson, George W.	Boston
Haron, Carl I.	Waltham
Hart, John E.	Bradford
Hatch, Richard M., Jr.	Watertown
Hawes, George H., Jr.	Medford
Hebard, James C., Jr.	Medford
Heffernan, Richard P.	Salem
Hendricks, John G.	Avon
Hennessey, Charles A.	Wollaston
Herndon, John L.	Beverly
Hill, Rowland B.	Leominster
Hinckley, Kenneth M.	Blue Hill, Maine
Hirsch, Frank D.	Chelsea
Holm, John W.	Boston
Hopkins, Paul M. L.	Melrose
Howard, William M.	Clark Mills, New York
Hubbard, Harrison W.	Brunswick, Maine
Hughes, Joseph S.	Watertown
Hurley, Warren A.	Roslindale
Huse, George	Newton
Hyde, Harold G.	Methuen
Hyman, Robert A.	Brookline
Ikerman, Charles E.	Cranston, Rhode Island
Irgon, Joseph	Boston

NAME	HOME ADDRESS
Jamilkowski, Vincent S.	New Bedford
Janson, Ronald J. (Bronis)	South Boston
Jaycock, Charles G., Jr.	Melrose Highlands
Jefferson, James F.	Belmont
Jenks, Peter E.	Wollaston
Johnson, Carl G., Jr.	Arlington
Joy, Daniel A., Jr.	Belmont
Joyce, Richard A.	East Bridgewater
Kagan, David	Cambridge
Katsogianis, John G.	Waltham
Kawagy, Richard F.	Boston
Keating, John P.	Medford
Kennedy, Donald E. C.	Haverhill
Kennedy, Edmond I.	Lexington
Kerr, John J.	Roxbury
Killam, Paul D.	Salem
Kinley, Chester R., Jr.	Clinton
Klein, Bernard L.	Brooklyn, New York
Klickstein, Herbert S.	Roxbury
Knecht, Edward G., Jr.	Middletown, Connecticut
Komich, Stanley A.	South Boston
Kordalski, John	Salem
Kostas, George J.	Haverhill
Kotowski, John P.	Cambridge
Krasnor, Leo	Boston
Kress, Harold W.	Methuen
Lacerda, Donald J.	Boston
Lafin, William L.	Hillsdale, New York
Lane, John D.	Newtonville
Lane, Norman R.	Southampton, New York
Lannary, Jack	Watertown
LaRose, Normand O.	Putnam, Connecticut
Larson, Carl O.	Lynn
Lasovick, Daniel	Roxbury
Lavender, John R.	Melrose
LeBeau, Sterling G.	Adams
Legal, Chapin, Jr.	Danvers
LeGrand, Vernon R.	West Somerville
Leland, George B.	Ipswich
Levinson, Melvin A.	Roxbury
Levy, Alan L.	Winthrop
Levy, Milton	Jersey City, New Jersey
Lickteig, John H.	West Haven, Connecticut
Littlehale, Arthur W., Jr.	Needham
Livingston, Paul M.	Honolulu, T. H.
Lovewell, Loring P.	Holliston
Macauley, Chester L.	Beverly
MacDonald, John H.	Woburn
MacGregor, Wallace S.	Boston
Maher, John E.	Wilson, Connecticut
Maneatis, John A.	Lawrence
Manning, Ralph W.	Somerville
Mardirosian, Milton M.	Watertown
Maree, Edward J.	Cohasset
Mariolis, Michael K.	Methuen
Maron, Harold	Peabody
Marshall, Gilbert A.	Wilder, Vermont
Matson, Theodore	Milford, New Hampshire
Matthewman, Rodger B.	Maynard

NAME	HOME ADDRESS
Mayne, Robert	Lisbon, New York
McBride, John E.	Chelsea
McCarthy, Harold S.	Turner Falls
McManus, John L.	Quincy
McNulty, Francis J.	Dorchester
Merrill, Ralph F.	West Roxbury
Merriman, Maximillian	Roxbury
Metaxatos, Louis	Peabody
Metcalfe, Irwin J.	Brookline
Miller, Murray	Peabody
Milo, Henry L., Jr.	Medford
Mintz, Myron H.	Dorchester
Moessner, Herbert	New Haven, Connecticut
Molica, Anthony J.	South Boston
Moll, Samuel	Revere
Molyn, Michael	Windsor Locks, Connecticut
Montgomery, William A.	North Adams
Moore, Frederick A., Jr.	Amesbury
Moore, Thomas J., Jr.	Marion
Morfitt, John W.	Malden
Morris, Alfred G., Jr.	Dorchester
Morse, Richard A.	Fall River
Moss, Robert W.	Bridgewater
Moulton, Richard G.	South Portland, Maine
Mudge, Robert W.	Belmont
Muldoon, James E.	Fairhaven
Murphy, James D.	Medford
Murphy, Walter J.	Ashland
Musiker, Harold R.	Dorchester
Nangeroni, Ambrose B.	Dorchester
Navin, Philip	Wollaston
Nazarian, Gregory H.	Woburn
Negrini, Vincent A., Jr.	Dedham
Newpol, Charles H.	Dorchester
Nichols, George E., Jr.	Hopedale
Noel, Chesley J.	Malden
Nolan, John P.	North Easton
O'Brien, Thomas F., Jr.	Dorchester
O'Connell, William J.	West Haven, Connecticut
Oxman, Martin H.	Malden
Page, John	Quincy
Paglia, Bruno A.	Boston
Paine, Joseph L.	Tilton, New Hampshire
Panowich, Edward T.	Riverhead, New York
Parrotta, Ralph P.	Boston
Parsons, William C.	Plymouth
Pasquale, Bernard	Jamaica Plain
Paul, Murray D.	Somerville
Perry, Kenneth	Waltham
Petach, Julius H.	Perth Amboy, New Jersey
Peterson, Edward I.	Norwalk, Connecticut
Peterson, Eugene F., Jr.	Arlington
Peterson, William C.	Medford
Peverly, Arthur W.	Melrose
Piatelli, Leon P.	Mattapan
Pillsbury, Charles B.	Allston
Pinkham, Franklin S.	Weston
Pitman, Paul A., Jr.	Wollaston
Plaisted, Richard B.	Belmont



NAME	HOME ADDRESS
Polishook, Samuel	Boston
Porter, Frederick C.	Billerica
Porter, Roger W.	Brockton
Potter, John S.	Concord
Preston, John L.	Medford
Preti, Leo L.	Middleboro
Priest, Bernard	Maynard
Quigley, Edward F.	Brighton
Radziewicz, Leo. J.	Boston
Ramig, Fred E.	Clinton
Randall, Charles H., Jr.	Roslindale
Rappoli, Nicholas E.	Somerville
Rathgeber, William H.	Chestnut Hill
Rawley, Ralph A.	Rockland, Maine
Ray, William J.	Wellesley Hills
Raymond, Roger A.	Wollaston
Reed, Theodore W.	Newtonville
Reisman, Arthur E.	Mansfield
Rich, Abraham M.	Chelsea
Richardson, George L.	Framingham
Richmond, William J.	Reading
Robbins, Frederic W.	Frye, Maine
Robertson, John T.	Boston
Robie, Richard F.	Quincy
Rolfe, Fred G., Jr.	Quincy
Romano, Joseph C., Jr.	West Suffield, Connecticut
Romano, Mario H.	Revere
Rowell, Howard P.	Holden
Rubin, Albert	Bangor, Maine
Runk, Wilfred H.	New Haven, Connecticut
Russell, George E., Jr.	Peabody
Sager, Richard H., Jr.	Quincy
Sampson, Mitchell A.	Lowell
Samuelson, Howard	Nantasket
Sarno, Arthur S.	Boston
Savoy, Robert W.	Anson, Maine
Schiller, Samuel	Revere
Schreiber, Robert	Belmont
Schroeder, Herbert	Belmont
Schuster, Walter W.	Seymour, Connecticut
Scott, Ernest H.	Marblehead
Scott, Lewis K., Jr.	Melrose
Scurto, Nicholas	Boston
Sears, George A., Jr.	Rockport
Sebring, Robert E., Jr.	Roslindale
Serotta, Norman	Dorchester
Seymour, Herbert K.	Buckland, Connecticut
Shank, William R.	Boston
Sharp, Warren A.	Wollaston
Shay, Edward J., Jr.	Framingham
Shepherd, Ridgley G., Jr.	Needham
Shrago, Louis I.	Boston
Shuffain, Stanley M.	Roxbury
Seigel, Harold	Mattapan
Silva, Joseph A., Jr.	Lexington
Sitarz, Walter J.	New Bedford
Sitek, Alexander S.	Salem
Smith, E. Judson	West Medford
Smith, Eugene F.	Palmyra, New York

NAME	HOME ADDRESS
Smith, Joseph A.	Boston
Smith, Philip M.	Brockton
Smith, Robert S.	New London, Connecticut
Sonia, Joseph A., Jr.	Lancaster
Souza, Frank H.	Milton
Spileos, Louis A.	Boston
Sprague, Frederick B.	Baldwinsville
Stanton, Frank G.	Needham
Starck, Russell E.	Centerville
Stearns, Edward C., Jr.	Waltham
Steinberg, Alvin M.	Dorchester
Stolberg, John F.	Worcester
Stone, Everett E.	Westboro
Straight, David M.	New Preston, Connecticut
Sulkin, Maurice	Boston
Sullivan, Edward H.	Salem
Sundstrom, Franklin V.	North Berwick, Maine
Suter, Russell E.	Allston
Swartz, Benjamin	Winthrop
Tangherlini, Eugene F.	Quincy
Tarbell, Robert S.	Hudson
Taylor, Francis W.	Cambridge
Taylor, Jason G.	Concord
Teixeira, Joseph R.	Dorchester
Tharp, Tillman C.	Hutchinson, Kansas
Thomas, Harold C.	North Easton
Thorpe, Robert T.	Revere
Tobey, George E., Jr.	Belmont
Towne, Allen N.	North Andover
Trail, H. Spicer	Groton, Connecticut
Trainovicus, Alphonse	Cambridge
Tully, Edward L.	Lowell
Turner, Arthur D.	Melrose
Vaccaro, Philip	East Boston
Van Horne, Robert A.	Bethel, Connecticut
Van Stry, Robert F.	Quincy
Van Vessel, Alvin D.	Warwick, New York
Varner, Albert F., Jr.	Jamaica Plain
Vozzella, Michael A.	Winchester
Wadland, Robert L.	Melrose
Waldman, Jason J.	Dorchester
Ward, George M.	Hingham
Ward, Harvey R.	Williston Park, New York
Warwick, Gordon F.	Worcester
Waterman, Harold L.	New Haven, Connecticut
Webber, Robert A.	Chelsea
Weiner, Martin	Malden
Weinstein, Richard S.	Brookline
Weisgold, Henry	Roxbury
Wells, Richard L.	Randolph
Wennerberg, Roland C.	Worcester
Wharton, Robert S.	Framingham
Whitford, John R.	Wakefield
Whittier, Roland L.	Gardiner, Maine
Willette, Chester E.	Patten, Maine
Willey, Herbert F.	Milton, New Hampshire
Williams, Harold G.	Guilford, Connecticut
Wilson, Lawrence T.	Richford, Vermont
Wilson, Melvin G.	Concord

NAME	HOME ADDRESS
Winograd, Abraham	Dorchester
Woewucki, Anthony	Natick
Wolfram, Raymond J.	Boston
Wood, Stanley G.	Taunton
Yellin, Hyman	Boston
Yeremian, George J.	Medford
Zalewski, Charles S.	Dorchester
Zaxman, Harry	Chelsea

## COLLEGE OF ENGINEERING

1938-1939

## Upperclassmen

NAME	CLASS	HOME ADDRESS
Abbott, T. G., Jr.	1942	Cambridge
Abend, Charles F.	1942	Wilkes Barre, Pennsylvania
Aberle, William D.	1942	Newton
Adler, Bernard	1942	Quincy
Ainslie, Henry U., Jr.	1942	Cohasset
Akell, Robert B.	1942	Boston
Akers, Guy L., Jr.	1939	Weston
Alexander, Herbert C.	1941	Medford
Alla, Francis V.	1939	Medford
Allen, Lyman S.	1942	Gloucester
Allen, Merrill S.	1939	Walpole
Allen, Russell E.	1941	Westboro
Almgren, Carl F.	1940	Milton
Almstrom, Gustaf E.	1940	Quincy
Amara, Dominic	1942	Boston
Andem, Wadsworth	1942	Milton
Anderson, A. Leonard	1939	North Easton
Anderson, Earl N.	1942	Woburn
Anderson, Richard E.	1940	Stockholm, Maine
Anderson, Robert J., Jr.	1940	Belmont
Andrews, Carl F.	1941	Boston
Andrews, Carlton R.	1942	Belmont
Ankstitus, John P.	1941	Worcester
Ansell, Norris	1942	Brookline
Apolis, John J.	1940	South Boston
Archibald, Frank R.	1941	Dorchester
Arduini, Nando A.	1939	White River Jct., Vermont
Aron, Mitchell	1942	Mattapan
Aron, Nathan	1940	Mattapan
Attridge, Gerry T.	1941	Pepperell
Atwood, Frank W.	1939	Terryfield, Connecticut
Atwood, Irving H., Jr.	1940	Haverhill
Audet, Clement R.	1942	Salem
Austin, Robert O.	1939	Orleans, Vermont
Avanzino, Paul	1939	Watertown
Ayers, Elwyn E.	1942	Beverly
Babcock, Stanley E.	1942	Binghamton, New York
Badala, Vincent	1942	Arlington
Bahry, Frank	1941	Salem
Bailey, Philip H.	1942	Dorchester
Baillie, George H.	1940	Somerville

NAME	CLASS	HOME ADDRESS
Baker, Albert E.	1940	Malden
Baker, Arthur G.	1939	Adams
Bamber, John E.	1941	Norwood
Barbour, Charles W., Jr.	1941	Portland, Maine
Barclay, John E., Jr.	1942	Brockton
Barmakian, Edward C.	1942	Watertown
Baron, O. L.	1942	Fall River
Barone, Joseph	1942	Waterbury, Connecticut
Bartels, Otto G.	1942	West Springfield
Bartelson, John R.	1942	East Milton
Bartlett, Ray H., Jr.	1942	Waltham
Bartlett, Robert W.	1941	South Boston
Barzelay, Arthur R.	1942	Malden
Barzelay, Martin E.	1939	Malden
Bassett, Nilsson S.	1941	Marblehead
Bates, Everett E.	1941	Marblehead
Batey, Arthur J.	1942	Newton Upper Falls
Battles, Richard F.	1939	Dedham
Baxter, Douglas F. J.	1942	Auburndale
Beake, Laurence I.	1941	Somerville
Bean, John L.	1940	Ayer
Bearcovitch, Aaron	1941	Mansfield
Beaton, Roy H.	1939	Stoughton
Beecher, William S., Jr.	1941	Wollaston
Beer, Gerard R.	1941	Dorchester
Begley, John J.	1942	Brighton
Bell, Wilbur C.	1942	South Portland, Maine
Benedetto, Anthony R.	1942	Wakefield
Bennekorn, Carl	1940	Arlington
Bennett, Harry W.	1942	Somerville
Benson, Ralph G.	1940	Roslindale
Benson, Vincent F.	1940	Dorchester
Benson, Warren M.	1941	North Easton
Bentley, John M.	1942	Waltham
Berestka, Edward S.	1941	Easthampton
Bergner, Arthur W.	1941	Lowell
Bernardi, Leno M.	1942	Stonington, Maine
Berzof, Harold	1939	Roxbury
Bierenbroodspot, Andrew	1940	Lexington
Billings, Sanford M.	1941	Hazardville, Connecticut
Bischoff, Lewis	1942	New Haven, Connecticut
Bishop, Burnett W.	1939	Boston
Bjorkman, Roy K. A.	1941	Lynn
Blanchard, Earle P.	1942	Whitman
Bliss, Herbert F., Jr.	1941	Taunton
Bliss, Zenas W.	1939	Wakefield
Bonanno, Walter J.	1941	Dorchester
Bonner, William J.	1942	Westerly, Rhode Island
Booth, Edwin F., Jr.	1942	Waltham
Bordwell, Collier G.	1942	Fonda, New York
Boudreau, John S.	1940	Gloucester
Bouldry, John M.	1941	Boston
Boutelle, Warren T.	1942	Winthrop
Bowen, Harry D.	1941	Somerville
Bowie, Harrison	1939	Roxbury
Boyd, Charles A.	1942	Waltham
Bracken, Gerald F.	1941	Watertown
Bray, Chester W.	1942	Gloucester
Brennan, Jack R.	1940	Minerville, New York

NAME	CLASS	HOME ADDRESS
Brennan, Richard J.	1940	Minerville, New York
Briand, Robert L.	1941	South Braintree
Bridgham, Minot A., Jr.	1942	Brookline
Brintall, Carl	1942	Peabody
Bronson, George E.	1939	Rockaway, New Jersey
Brookfield, Richard A.	1941	Sharon
Brooks, Lorimer P.	1939	Agawam
Brown, Elliot M.	1939	Pawlet, Vermont
Brown, Fred H.	1942	Marblehead
Brown, Harold F.	1940	Roxbury
Brown, Harold M.	1942	Center Ossippee, N. H.
Brown, Herbert N.	1942	Taunton
Brown, James D. T.	1942	Somerville
Brown, Robert H.	1939	Boston
Brown, Robert I.	1942	Barre, Vermont
Brown, Roger A.	1942	Dorchester
Bruce, Lawrence H.	1940	Wakefield
Buckley, Daniel J., Jr.	1942	Malden
Burghardt, Alden M.	1942	South Dartmouth
Burns, Ralph	1942	Marlboro
Burrell, Willard A.	1941	Rockland
Burt, Carleton H.	1939	West Hartford, Connecticut
Bustead, William J.	1941	Burlington
Butterfield, Forrest V.	1942	Springfield, Vermont
Buxton, Harold A.	1942	Littleton
Cahoon, Charles D.	1939	Lynn
Caldwell, Leonard A., III	1942	Canaan, Connecticut
Camara, John L.	1939	Oak Bluffs
Caputo, Americo A.	1941	East Boston
Carbonaro, Philip A. G.	1939	Dorchester
Carosi, Alfred C.	1941	Quincy
Carpano, Vincent A.	1940	Fall River
Carpenter, Robert D.	1941	Waltham
Carpenter, Vernon F.	1941	Sandy Creek, New York
Carr, Ralph S.	1941	Concord, New Hampshire
Cegelski, Joseph J.	1941	New Haven, Connecticut
Chaffee, Robert E.	1941	Belmont
Chandler, Philip C.	1942	Plymouth
Chatterton, Earl L.	1941	Somerville
Chechames, Arthur H.	1941	Cambridge
Chilson, Homer E.	1942	Northampton
Chin, Henry	1942	Chelsea
Chipkin, Charles	1942	New Haven, Connecticut
Chipman, John C.	1942	Arlington
Chipman, Robert H.	1942	Cambridge
Christopher, Anthony J.	1942	Revere
Church, Arthur E., Jr.	1942	Leominster
Clancy, John J.	1941	Millis
Clancy, Joseph F.	1939	West Roxbury
Clark, Willard D.	1941	East Boston
Clement, Philip H.	1939	Boston
Cleveland, Eric G.	1942	West Woodstock, Vermont
Cleveland, Leon M.	1942	Reading, Vermont
Cleveland, Norman B.	1939	Beverly
Cline, Penneth M.	1940	Roxbury
Cochrane, Robert G.	1942	Saugus
Coffin, Clifford H., Jr.	1941	Framingham Center
Coghlan, Frank	1941	Dorchester
Cohen, Leonard B.	1941	Dorchester



NAME	CLASS	HOME ADDRESS
Coleman, Ralph A.	1941	Squantum
Combella, Earle M.	1940	Augusta, Maine
Conninos, George C.	1940	Lynn
Comstock, Alfred N.	1940	Norwalk, Connecticut
Conlan, Emmett P.	1939	Attleboro
Conlin, Daniel J.	1940	West Roxbury
Connor, John M.	1942	Mansfield
Cook, Frank B.	1941	Allston
Cook, James A.	1939	Allston
Corcoran, William J.	1940	Brighton
Corey, Roger L.	1940	Canton
Cornelissen, Richard F.	1939	Dorchester
Cornwell, Altamont J.	1942	Blasdell, New York
Cotton, Paul E.	1941	Worcester
Coughlin, Bernard J.	1941	Greenfield
Coughlin, Joseph F.	1941	Norwood
Cowdrey, Paul E.	1942	Vineyard Haven
Coyle, Robert J.	1942	Waterbury, Connecticut
Crispell, Herbert P.	1941	Binghamton, New York
Croll, Irving	1941	Chelsea
Cronan, Calvin S.	1940	Newtonville
Crossley, Norman S.	1942	Laconia, New Hampshire
Crowther, Ralph F.	1941	Framingham
Crozier, Robert	1942	Middleboro
Crumb, Lloyd P.	1941	Leonardsville, New York
Cryder, Edward H.	1940	Wakefield
Cummings, Francis W.	1942	Boston
Cunnare, Francis H.	1941	Waltham
Cunningham, Gerald F.	1941	Haverhill
Cunningham, John J.	1940	Saugus
Cushman, George S.	1941	Fall River
Cushman, Howard R.	1940	Adamsdale
Cuzner, Frank C.	1939	North Easton
Daigle, Oscar L.	1942	Van Buren, Maine
Daley, Robert W.	1942	Malden
Damassa, Frank R.	1939	Aliquippa, Pennsylvania
Danburg, Abraham	1941	Boston
Danforth, Paul C.	1940	Danvers
Darling, George T.	1940	Norwood
Davis, Arnold B.	1939	Newtonville
Davis, Alfred S., Jr.	1939	Waban
Davis, Carl C.	1941	Newtonville
Decker, Wilnot H.	1940	Greenwood
Deibert, Clarence R.	1939	Valley View, Pennsylvania
Delano, Clarence E., Jr.	1942	Plymouth
DeLouis, Pasquale J.	1942	Cambridge
DeNapoli, Gerard R.	1941	Newton
Deneke, George E.	1942	Mystic, Connecticut
dePiccolellis, John P.	1942	Boston
DePina, Edward J.	1941	Norwich, Connecticut
Dergay, Leonard J.	1942	Cambridge
DeRocco, Alfred D.	1942	Brighton
DeRoeck, Frank R.	1939	Dorchester
DeRosa, Vincent	1942	Somerville
Dethier, Gerard B.	1942	Boston
Devine, Joseph M.	1940	Somerville
Dickey, Gilmore C., Jr.	1942	Belmont
Dickinson, Robert H.	1939	Bridgewater, Connecticut
Diette, Ernest J.	1940	New Haven, Connecticut

NAME	CLASS	HOME ADDRESS
Dimitri, Sevo J.	1940	Taunton
DiNozzi, Guido	1941	Boston
Dion, Raymond O.	1941	Salem
Dionne, Arthur L.	1939	Walpole
DiPietro, William O.	1942	Watertown
Director, Philip R.	1942	Cambridge
Dixon, Robert A.	1941	Malden
Doherty, Leo F.	1941	Revere
Donahue, Patrick H.	1941	Milton
Donelson, George R.	1941	North Hatfield
Doros, Adolph S.	1942	Bridgewater
Dowd, James W.	1942	Taunton
Dowling, John H.	1941	Dorchester
Drevich, Samuel	1942	Roxbury
Drinkwater, Robert B.	1940	Needham
Drury, Harold B.	1942	Athol
Dudley, Benjamin A.	1942	Marlboro
Dunlavy, Frank J., Jr.	1941	Wollaston
Dunn, Albert A.	1940	Allston
Dwyer, Francis L.	1942	Brighton
Eckert, John O.	1941	Greenwood
Eckler, Norman H.	1941	Hegins, Pennsylvania
Eibel, Carl V.	1942	Malden
Elkins, Irwin	1941	Allston
Elksnin, Henry	1942	Brockton
Elliott, Edgar H.	1942	Thompson, Connecticut
Ellis, Calvin	1942	Harwichport
Ellis, Charles G.	1942	Sagamore
Ellis, Franklin F.	1941	Norwood
Ellis, Robert O.	1941	Rangeley, Maine
Ellsworth, N. William	1941	Binghamton, New York
England, William H.	1940	Dorchester
Ertel, William R.	1942	Wareham
Everett, William C.	1942	Taunton
Fabrizio, Angelo L.	1941	Waltham
Fallon, Thomas F.	1942	North Billerica
Fallows, Ernest M.	1941	Quincy
Farney, Leonard C.	1941	Lowville, New York
Fasoli, Paul A.	1942	Mechanicville, New York
Fay, Eldon T.	1939	Watertown
Feely, Timothy T.	1942	Mattapan
Feidt, William E.	1939	Boston
Feinberg, Milton I.	1941	Boston
Ferguson, Donald O.	1940	New London, Connecticut
Ferguson, Harry J.	1941	Roslindale
Field, Robert A.	1942	Roslindale
Fillebrown, Carter, Jr.	1941	Wollaston
Finkle, Earl	1941	Revere
Fisher, Harland S.	1942	Greenfield
Fisher, Malcolm E.	1942	Greenfield
FitzGibbon, John E.	1940	Taunton
Flato, Jerome C.	1942	Boston
Flowers, William R.	1941	Augusta, Maine
Flynn, Daniel J.	1942	Wakefield
Forant, Paul R.	1942	Dorchester
Ford, Charles E.	1942	East Braintree
Foss, Frederick A., Jr.	1942	Auburndale
Foster, Charles F.	1942	Lynn
Fox, Myer	1942	Everett

NAME	CLASS	HOME ADDRESS
Fox, William, Jr.	1942	Brockton
Freeman, Albert W.	1940	Hollis, New Hampshire
Freeman, Dean	1942	Somerville
Freeman, Emery E., Jr.	1940	Cohasset
Freeman, Harry L.	1939	Roxbury
French, Hector E.	1941	Carlisle
French, Milton R.	1941	Beverly
Fullam, Harland O.	1939	Westminster, Vermont
Fuller, Everett H.	1940	East Walpole
Fulvi, Renato J.	1939	Mansfield
Furman, Merrill D., Jr.	1942	Steep Falls, Maine
Gaffney, Bernard J.	1940	Winchester
Gagne, Wilfred N.	1940	Fairfield, Connecticut
Galanopoulos, William P.	1939	Boston
Galer, Arthur	1942	Roxbury
Ganong, Curtis R.	1940	Arlington
Gantman, Sidney D.	1942	Roxbury
Gardner, Ralph W.	1939	South Weymouth
Gardner, Walter C.	1942	Cohasset
Gates, Charles E.	1942	Belmont
Gauld, Edward	1940	Brookline
Geller, Irving	1942	Boston
Geller, Sidney N.	1941	Dorchester
Georgalos, James	1941	East Boston
Gerry, David C.	1941	Topsfield
Gibbs, David W.	1942	Frammingham
Gibson, William L.	1939	Boston
Giles, James E., Jr.	1940	Newburyport
Gill, John G.	1942	West Newton
Gill, John J.	1940	Brighton
Gilman, Arthur E.	1939	Newburyport
Ginsberg, Abraham S.	1942	Everett
Ginther, Robert J.	1940	Lewiston, Maine
Glass, Hyman A.	1940	Roxbury
Gledhill, Samuel	1942	Worcester
Glidden, James P.	1941	Belmont
Glines, Arthur B.	1942	Andover
Glover, Francis H.	1939	Roslindale
Goddess, Matthew	1940	Mattapan
Gogolin, Robert T.	1941	Maynard
Golden, Maurice I.	1942	Dorchester
Gomez, Anthony A.	1942	East Cambridge
Goodwin, Albert	1941	Lynn
Gordon, Emanuel	1941	Malden
Gordon, James D.	1941	Weymouth
Gorman, Frederick E.	1940	Wellesley
Gove, Robert A.	1941	Newburyport
Gowen, Ralph H.	1942	Lynn
Grady, Walter T.	1940	Roslindale
Graswicz, Edward	1941	Medford
Green, Harold	1942	Malden
Green, Laurence H.	1942	Arlington
Greene, Herbert L.	1942	Melrose
Greenleaf, Francis D.	1942	Foxboro
Grover, John T.	1941	Halifax
Guastella, Samuel	1942	Fitchburg
Gurkowski, Frank R.	1939	Worcester
Gustafson, Edwin A.	1942	Maynard
Hagopian, Noriar N.	1940	Watertown

NAME	CLASS	HOME ADDRESS
Haley, James F.	1939	Groton
Haliburton, George M.	1942	Boston
Hall, Ian L.	1941	Dorchester
Hall, Leon E.	1941	Newton
Halle, Mitchell J.	1941	East Boston
Hallen, Robert O.	1940	Everett
Hallett, Russell S.	1942	Walpole
Hamilton, Earl R.	1942	Norton
Hammond, Herbert C.	1940	Newburyport
Hanchett, George D., Jr.	1942	Natick
Handler, Arthur	1942	Brookline
Handy, Douglas C.	1942	North Springfield, Vermont
Hanscom, Lewis C.	1941	Springfield, Maine
Hardie, Donald C.	1940	Brookville
Hardy, William L., Jr.	1940	Cochituate
Hargreaves, James A.	1942	North Andover
Harrington, Richard C.	1939	Groton
Harris, Maceo A.	1942	Boston
Hart, Gordon M.	1942	Cambridge
Hart, Merrill D.	1939	Malden
Hartford, Arthur F., Jr.	1941	Wollaston
Hartley, James F.	1940	Rochester
Hartwell, David W.	1942	Newton Highlands
Haskell, Arthur C., Jr.	1942	Marblehead
Haskell, Russell A.	1940	East Haven, Connecticut
Hastings, Robert R.	1941	Arlington
Hastings, Stanley R.	1941	Marblehead
Haufler, Robert C.	1941	Jamaica Plain
Hawthorne, Nathaniel	1942	Watertown
Hayner, Paul F.	1939	Jamaica Plain
Haynes, Paul D.	1942	Quincy
Hayward, Gardner L.	1942	Belmont
Henderson, Austin B.	1942	Beverly
Henderson, George C., Jr.	1942	Brighton
Henderson, Robert D.	1942	Sherborn
Henderson, Roberts	1941	Arlington
Herbert, George E., Jr.	1942	Haverhill
Herlihy, John E.	1942	Dorchester
Hewson, Charles R.	1941	Wellesley Hills
Higgins, John A.	1942	Andover
Higgins, Joseph M.	1939	Revere
Hill, Dana L.	1942	Wollaston
Hill, John A.	1942	Lowell
Hillier, Arnold	1941	Stony Point, New York
Hinckley, Richard B.	1942	Dorchester
Hintsa, Oliva E.	1939	Maynard
Hisamoto, Masayuki	1941	Somerville
Hoffman, Carl	1942	Hartford, Connecticut
Hoffman, Michael J.	1942	Brighton
Hojem, Robert S.	1942	West Concord
Holcomb, Normand P.	1940	Warehouse Point, Conn.
Holland, Robert T.	1941	Woburn
Hollis, Thomas, Jr.	1941	Concord
Holman, Robert C.	1942	Norwood
Hopkinson, Victor L.	1942	Fitchburg
Horgan, Frederick R.	1942	West Newton
Hourihan, John T.	1940	Peabody
Howe, Richard P.	1941	West Acton
Howie, Malcolm P.	1942	Watertown

NAME	CLASS	HOME ADDRESS
Howlett, Joseph F.	1941	Medford
Hughes, Alfred F.	1942	Lynn
Humphreys, Frederick C.	1939	Dedham
Hunt, Charles G., Jr.	1939	Newton Centre
Hunter, Arthur D.	1939	Arlington
Hunter, Clayton W.	1940	Newport, Vermont
Hunting, Elmer R., Jr.	1942	Springfield, Vermont
Hurley, Raymond B.	1941	West Newton
Hussey, Elmer E.	1941	Everett
Ireland, Robert W.	1941	Lynn
Irish, Donald B.	1939	Portland, Maine
Irwin, Richard J.	1939	Pownal, Vermont
Isaacsen, Henry N.	1939	North Raynham
Jackson, Charles W., Jr.	1941	Hartford, Connecticut
Jackson, Samuel W.	1942	Medina, New York
Jackson, Thomas H.	1942	Quincy
Jacolev, Leon	1939	Malden
James, Arnold B.	1939	Boston
Jeanfavre, Roger E.	1940	Torrington, Connecticut
Jennings, Paul	1941	South Braintree
Jensen, Grant S.	1941	Portland, Maine
Jewett, George W.	1942	Bellows Falls, Vermont
Johnson, Albert D.	1941	Norfolk Downs
Johnson, James E.	1940	Gardner
Johnson, Kimberley	1942	Peekskill, New York
Johnson, Philip E.	1941	Lynn
Johnson, Ralph D.	1942	North Grafton
Johnson, Ralph F.	1941	Newburyport
Johnson, Winsted H.	1942	Belmont
Johnston, Benjamin K.	1939	Lynn
Joslin, Grant W.	1939	Arlington
Juusola, Roy A.	1942	Fitchburg
Kalayjian, Charles H.	1942	South Boston
Kaprielian, Armen J., Jr.	1942	Natick
Karlsberg, Rubin	1941	Dorchester
Katz, Israel	1941	Boston
Katz, Maurice	1941	Dorchester
Kaufman, Arnold	1940	Malden
Keck, Alfred	1940	Hyde Park
Keep, Philip R.	1939	Rangeley, Maine
Keesan, Joseph I.	1940	Dorchester
Kelley, Walter B.	1941	Dorchester
Kelly, Colby E.	1942	Lawrence
Kendall, Julius	1941	Dorchester
Ketcham, Arthur W.	1941	Salisbury, Vermont
Ketchen, Charles W.	1940	Medford
Ketchen, Ernest B.	1941	Medford
Keyes, Fenton G.	1939	Newtonville
Kiley, Robert J.	1941	Dorchester
Kilroy, James J.	1942	Dorchester
Kippen, Russell F.	1940	Gloucester
Kirkaldy, Robert B.	1940	Dorchester
Klemm, George H.	1942	New Bedford
Knight, Winfield B.	1941	Taunton
Kodis, Ralph D.	1940	Portland, Maine
Komskis, Joseph F.	1941	Southold, New York
Korejwa, Alfred	1940	Dorchester
Krystyan, Karol J.	1939	Winthrop
Kudravetz, Michael K.	1939	Norwich, Connecticut



NAME	CLASS	HOME ADDRESS
Kulberg, Marshall E.	1942	Beverly
Kushner, David	1940	Boston
Laakso, Rudolph A.	1942	Fitchburg
Ladd, Harvey F.	1942	Montclair, New Jersey
Lafferty, Robert H.	1941	Bradley Beach, New Jersey
Lamb, William X., Jr.	1941	Taunton
Lambert, Alfred E.	1939	West Roxbury
Lambert, Charles E.	1939	West Hartford, Connecticut
Lammi, Heimo R.	1942	Norwood
Landall, Alden P.	1939	Lynn
Landman, Saul	1942	Dorchester
Landsman, Abraham E.	1940	Boston
Landwehr, Edward C.	1939	New Britain, Connecticut
Lane, Norman R.	1940	Southampton, New York
Lanzilli, Carl	1940	East Boston
Lapham, Edmund F., Jr.	1942	Norwell
Lapham, Wallace S.	1942	Attleboro
Lariviere, Frank J.	1942	Manchester, New Hampshire
Larsen, Fred R.	1941	Somerville
Lavache, Francis W.	1939	Plymouth
Laverty, Harold H.	1942	Brownville, Maine
Lawrence, Lloyd S.	1941	LaFargeville, New York
Lechter, Max M.	1942	Norwood
Ledwith, Walter A.	1939	New Haven, Connecticut
Leighton, Burritt F.	1939	Brockton
Leonard, Fred P.	1941	Taunton
Leonard, John G.	1939	Lynn
Leonard, Milton H.	1941	Barker, New York
Leong, Fred	1942	West Somerville
Leslie, Albert J.	1942	Arlington
Levenson, Paul M.	1940	Roxbury
Levine, David	1942	Chelsea
Levy, Joshua P.	1941	Dorchester
Lewis, Gardner H.	1941	Hampton, Connecticut
Likos, Thomas A.	1942	South Boston
Lind, Gustav A.	1941	Brookline
Lipman, Robert N.	1941	Lynn
Little, Frederick A.	1940	Wollaston
Lovett, John F.	1942	Cambridge
Lovgren, Carl A.	1942	Rockport
Lundquist, Richard A.	1941	Arlington
Lundwall, Paul W.	1939	Lowell
Lynde, Fairfield F.	1942	Walden, New York
MacCaffray, Stuart A.	1941	Hull
MacCallum, George A.	1940	Taunton
Macewen, Herbert F.	1941	Natick
MacFaden, Delbert W.	1942	North Quincy
MacIntyre, Norman I.	1942	Quincy
MacIntyre, Victor S.	1940	Milton
MacKenzie, Alfred K.	1939	Boston
MacLeod, James A.	1941	Charleston, Maine
Macmann, Edward N.	1941	Reading
MacMath, Warren E.	1941	Auburndale
Macomber, Heywood B., Jr.	1942	Needham
MacRae, Austin D., Jr.	1939	Concord
Madden, Richard M.	1941	Rangeley, Maine
Maddock, Albert T.	1942	Brookline
Maguire, John H.	1942	West Roxbury
Mahoney, George L.	1941	Taunton

NAME	CLASS	HOME ADDRESS
Mainini, Frederick W.	1942	Milford
Maling, Henry F.	1939	Arlington
Maneatis, James A.	1942	Lawrence
Mann, Alvin H.	1939	Dorchester
Manning, John H.	1939	Newton
Manoogian, Henry	1940	Salem Depot, N. H.
Manuel, E. George	1939	Long Branch, New Jersey
Marino, Felix	1941	Swampscott
Markham, Leslie	1941	Essex, Connecticut
Marsh, Charles F.	1941	East Lynn
Marshall, Alfred L.	1939	Melrose
Marshall, John E.	1942	Fall River
Marshall, Robert H.	1941	Needham
Marks, Murray	1942	Chelsea
Marston, James W.	1942	Brockton
Marston, Robert S.	1941	Dedham
Martin, Roland J.	1940	East Hiram, Maine
Mascianica, Francis S.	1941	Everett
Materese, Vincent	1941	Melrose
Mattioli, Arthur R.	1940	Arlington
Maybury, Richard D.	1939	Saco, Maine
Maynard, Arthur F.	1940	Lake Placid, New York
McAllister, Robert W.	1941	Tarentum, Pennsylvania
McAuliffe, Kenneth W.	1942	Duxbury
McCarty, Charles D.	1941	New Bedford
McCole, John J. P.	1942	South Boston
McDonald, John L.	1941	Cambridge
McDonald, Ralph C.	1939	East Boston
McDonough, Thomas C.	1940	Arlington
McEwan, Alexander	1940	East Braintree
McGarry, Robert W.	1941	Maynard
McGoohan, William M.	1942	Lowell
McGrath, William A.	1939	Adams
McInnis, Vincent J.	1941	Waltham
McKeen, Robert G.	1942	Quincy
McKenzie, Allan M.	1941	Dorchester
McKenzie, Bertram E.	1939	Dorchester
McLane, Hugh W.	1941	Waltham
McMahan, Thomas E.	1940	Dorchester
McManus, Richard O.	1941	Dorchester
McNeil, William	1942	Boston
McQueen, William A.	1941	Boston
Melkonian, Hurire	1941	Penacook, New Hampshire
Meltzer, Jack	1939	Portland, Maine
Melville, Norman L.	1941	Quincy
Menzies, Donald W.	1942	Medford
Merdinyan, William A.	1942	Pawtucket, Rhode Island
Merrill, Raymond E., Jr.	1941	Arlington
Metherall, John F.	1939	Wollaston
Michaelson, Louis J.	1942	Dorchester
Miles, Daniel W.	1940	Norwood
Miller, George B.	1942	Watertown
Miller, Harry	1939	Dorchester
Miller, Harvey S.	1941	Brookline
Miller, Richard C.	1942	Lynn
Millman, O. Robert	1942	Boston
Monson, Roy E.	1941	West Hartford, Connecticut
Monti, Edmund C.	1942	Quincy
Montimaggi, Mario F.	1942	Plymouth

NAME	CLASS	HOME ADDRESS
Moody, George F., Jr.	1939	Swampscott
Moraski, Edward	1941	Boston
Morgan, Edward W.	1941	Gardner
Morgan, Harold K.	1941	Topsfield
Morrison, Burton W., Jr.	1942	Waltham
Morrison, Clyde W.	1942	South Braintree
Morrissey, David J.	1942	Brookline
Morrow, Harold F.	1942	Somerville
Morse, Charles P.	1942	Roslindale
Morse, Frank H.	1942	Waterford, Maine
Morse, Reginald	1941	Auburndale
Morton, Eldon J.	1940	Quincy
Morton, John J.	1942	Lowell
Mott, Clinton P.	1942	Queens Village, New York
Mozzicato, Joseph A.	1942	Medford
Moy, Frank N.	1942	Boston
Mroz, Edmund A.	1942	Salem
Mudge, Robert G.	1942	Lynn
Mudgett, Arthur	1942	Framingham
Mulak, Stephen	1939	Hazardville, Connecticut
Mulock, John F.	1942	Brookline
Munday, Howard P.	1942	Lexington
Murphy, James F.	1939	Dorchester
Murray, Robert H.	1942	Newton
Murray, Thomas M.	1940	Taunton
Murray, Walter P.	1942	South Weymouth
Myers, Elwood R.	1942	Wethersfield, Connecticut
Naiman, Robert	1942	Roxbury
Nee, Joseph M.	1940	Dorchester
Nelson, Carl J.	1941	Gloucester
Nelson, James A.	1942	Jamaica Plain
Nelson, Robert C.	1942	Needham
Newcomb, Royce R.	1941	Angola, New York
Newton, Robert G.	1940	Sharon
Nicolosi, Sebastian	1940	Lawrence
Niconchuk, Alec W.	1941	Peabody
Noble, C. Richard	1942	Feeding Hills
Noonan, Hugh J.	1942	Peabody
Nordstrom, Joseph A.	1941	Bridgeport, Connecticut
Nowosielski, Alfred	1939	East Boston
Nye, James H.	1940	Brockton
O'Connell, Philip	1940	North Easton
O'Connor, Arthur M.	1941	Revere
Ogle, William	1941	Malden
Oksanen, Owney D.	1942	No Scituate, Rhode Island
O'Neil, Stephen J.	1941	Dorchester
O'Neil, Harry T.	1939	Taunton
Ordway, David W.	1942	Auburndale
Pappas, Constantine A.	1942	Dorchester
Pappas, M. J.	1939	Dedham
Paraskevas, Anastasios J.	1942	Roxbury
Park, Robert L.	1939	South Weymouth
Parkhurst, Nelson	1941	Revere
Parsons, Roy L., Jr.	1941	Gloucester
Parssinen, Edwin J.	1942	Sandwich
Patev, Nikola	1941	Brockton
Patten, Donald O.	1942	Sterling
Patterson, Alfred J.	1942	Boston
Paul, C. Craig	1941	South Braintree

NAME	CLASS	HOME ADDRESS
Pearson, David A.	1941	Medina, New York
Pearson, Donald B.	1940	New Sweden, Maine
Pearson, Thomas J.	1940	Lawrence
Peeke, Ernest C.	1939	Newburyport
Pelley, James A.	1941	Lynn
Peoples, Robert R.	1939	Natick
Perkins, William J.	1940	Danvers
Perkins, William W.	1942	Hingham
Perry, Elmer J.	1939	Melrose
Perry, Walter E.	1942	Holden
Persia, Philip M.	1939	Holley, New York
Peterson, Carl J.	1942	Brockton
Peterson, Henry	1942	East Natick
Peterson, Stanley R.	1942	Hyde Park
Petraske, William C.	1939	Johnstown, New York
Petrou, Nickos	1940	Springfield
Phelan, Joseph B.	1942	Everett
Phillips, Percy B.	1942	Benson, Vermont
Phoenix, Walter H.	1942	Allston
Pickering, George D.	1939	Dorchester
Piekarski, Joseph B.	1939	Roslindale
Pierson, Robert P.	1941	Brighton
Piotrowski, Henry J.	1940	Dorchester
Pittendreigh, William W.	1939	New Bedford
Polansky, Alfred	1942	Salem
Pollard, Lewis W.	1939	Dorchester
Polley, Robert W.	1939	Natick
Polonsky, Abraham	1941	New Bedford
Pomeroy, William D.	1942	Andover
Porembski, Thaddeus T.	1939	City Mills
Pottle, Herbert W.	1940	Newburyport
Powers, George A.	1942	Revere
Pratt, Harold L.	1940	Newtonville
Priestman, Leslie	1942	Ashland
Pritchard, Herbert C.	1941	Wollaston
Prizio, Thomas	1942	Revere
Provencher, Robert D.	1939	Somerville
Psilekas, Vassil L.	1939	Brockton
Quirk, John D.	1942	East Weymouth
Race, Harry C.	1941	Norwood
Ramsey, James G., Jr.	1942	Melrose
Rand, Arthur I.	1941	Danvers
Rand, Hazen B.	1941	Avon
Rand, Stuart C.	1942	Newton
Rasanen, Leon E.	1942	Norwood
Ray, Arthur F.	1941	Watertown
Raybuck, William B.	1942	Montville, Connecticut
Reed, Warren L.	1941	Stoneham
Reiniger, Louis G.	1940	Saugus
Reuell, Gordon	1942	Woburn
Reynolds, Adelbert R., Jr.	1940	Portland, Maine
Richardson, Kenneth W., Jr.	1942	Framingham
Richardson, William F.	1940	Malden
Ricker, Millard O.	1939	Harrisburg, Pennsylvania
Riford, Charles P.	1939	East Randolph, Vermont
Rigney, Edward T.	1942	Roslindale
Rimer, Manuel	1940	Mattapan
Riola, Michael	1942	Bridgeport, Connecticut
Robinson, Victor I.	1942	Salem

NAME	CLASS	HOME ADDRESS
Rockett, Robert E.	1939	Valley Stream, New York
Rogers, John B.	1941	Methuen
Rogers, Murray H.	1941	Methuen
Rogers, Russell J.	1941	West Pawlet, Vermont
Rogers, William H., Jr.	1940	Malden
Rook, Gustav	1939	Boston
Root, Stephen	1942	Winchester
Rosberry, Frederick	1941	Millers Falls
Rosenberg, Irving S.	1940	Chelsea
Rosenkrans, Frank A.	1940	Needham Heights
Rosenthal, Seymour M.	1941	Dorchester
Rosnov, Maxwell	1939	Mattapan
Ross, George G.	1942	Waltham
Ross, Morwick	1939	Jamaica Plain
Roundy, Wayne A.	1941	Gardner
Rowe, Frederick D.	1939	Orange
Roy, Arthur	1941	Fall River
Rubin, Harry	1941	Brookline
Ruggiero, Francis J.	1941	Boston
Ryan, Frank E., Jr.	1940	Brighton
Ryan, Robert C.	1941	Haverhill
Ryder, Raymond B.	1941	Saugus
Rymsha, Michael J.	1941	Cambridge
Sackett, Herbert S.	1939	Springfield
Sakamoto, Makoto	1941	Dedham
Samet, Herbert A.	1941	Boston
Sammonds, Robert I.	1942	Beverly
Samuelian, Andrew Y.	1940	Boston
Samuelson, Ralph H.	1941	Arlington
Sanborn, William	1942	Cambridge
Sanford, James F.	1942	Water Mill, New York
Sanseverino, Frank J.	1939	Boston
Santoro, Elio A.	1942	Somerville
Sarnow, Frank W.	1939	Melrose
Sattin, Frank	1942	Revere
Saunders, Arnold E.	1942	Chelmsford
Savage, Kenneth M.	1941	Dorchester
Sayre, Philip	1942	Boston
Sayward, S. Stowe	1940	Melrose
Schall, Louis H.	1942	Dedham
Schantz, John C.	1942	Newark, New York
Schmieder, Albert K.	1941	Canton
Schroder, Charles H.	1940	West Hartford, Connecticut
Schueler, Martin J.	1939	Stamford, Connecticut
Schwelm, Frederick C.	1939	Somerville
Scott, George C.	1939	Granby
Seeley, Henry G.	1940	South Boston
Seiler, Wilbur F.	1942	Roslindale
Sellon, Woodrow L.	1940	Melrose
Serafini, Lelio	1942	Quincy
Sevougian, Stephen G.	1940	Brockton
Shackford, Robert W.	1942	Medford
Shailer, Malcolm H.	1940	Chester, Connecticut
Shaman, Morris N.	1939	Roxbury
Shapiro, Saul	1940	Mattapan
Sharp, Daniel D.	1939	Stoneham
Sharp, John R.	1941	Wollaston
Shaw, William M.	1941	Wollaston
Sheehan, Eugene W.	1939	Rockland



NAME	CLASS	HOME ADDRESS
Sherman, Frederick L.	1939	Marlboro
Shilub, Sarkis J.	1942	Springfield
Shopnik, Morton	1940	Dorchester
Shortell, Edward	1941	Greenfield
Showstack, Max	1942	Roxbury
Shulman, Irving	1941	Dorchester
Siegel, Sidney J.	1942	Lawrence
Sigismund, Mark	1941	Brighton
Silsby, Henry F., Jr.	1940	Needham
Silsby, Norman S.	1942	Needham
Simon, Sylvan S.	1942	Newton Centre
Sinofsky, Louis H.	1940	Roxbury
Sinton, John J.	1940	Bedford
Skoglund, Walter	1942	Quincy
Slavin, Ernest F.	1942	Winthrop
Small, Holmes L.	1942	Medford
Small, Harold M.	1939	Springfield
Smith, Arthur C.	1941	Lexington
Smith, Bill K.	1942	Winthrop
Smith, Elmer E.	1942	Sabael, New York
Smith, John L., Jr.	1940	Islington
Smith, Lewis B.	1941	Berwick, Pennsylvania
Smith, Lothrop	1940	Wollaston
Smith, Philip G.	1939	Beverly
Smith, William L.	1941	Raynham
Snell, George A.	1941	Nantucket
Snow, Arnold E.	1941	Greenfield
Snyder, George J.	1941	Boston
Solovey, John, Jr.	1940	Harrison, New York
Soucy, Oliver F.	1942	West Roxbury
Spear, L. True, Jr.	1942	Rockport, Maine
Spidell, Emery P.	1940	Dorchester
Stacey, John H.	1942	Saugus
Staller, Jack J.	1942	Winthrop
Stanton, Francis A.	1940	Dorchester
Stawicki, Sigmund W.	1940	Chelsea
Stead, Norman A.	1942	North Andover
Steele, Charles E.	1942	Quincy
Stein, Julius	1939	Chelsea
Sterr, William R.	1939	Swampscott
Stevens, Clarence W., Jr.	1939	North Quincy
Stewart, J. Rogers	1941	Belmont
Stickland, Walter W.	1939	Reading
Stirling, William H.	1942	Fitchburg
Stockbridge, Willis C.	1939	Maynard
Stoddard, Stuart V.	1941	Rockland
Stone, Clarence E.	1941	Brockton
Stone, Clyde C.	1941	Brockton
Stone, Merrill M.	1942	Allston
Stone, Ralph W., Jr.	1942	Springfield
Stone, Walter E.	1942	Bridgeport, Connecticut
Streeter, Milton H.	1942	Barnardston
Stupak, Frank R.	1940	Norwood
Sturtevant, Paul F.	1939	Halifax
Styron, Howard S.	1942	New Bern, North Carolina
Sundborg, Thomas, Jr.	1940	Newton
Sutliff, Richard D.	1942	Gloversville, New York
Svelnis, Frank S.	1941	South Boston
Swain, Walter	1940	Haverhill

NAME	CLASS	HOME ADDRESS
Swanson, Leslie	1939	Quincy
Swift, Charles B., Jr.	1942	Taunton
Szablewicz, John H.	1941	Hyde Park
Tagliaferro, Louis R.	1939	Pittsfield
Tartari, Joseph T.	1939	Wellesley
Taylor, Erwin N.	1941	Waltham
Tevlin, Thomas Y.	1942	Lowell
Thayer, Floyd L.	1939	Hingham
Thomas, Robert H., Jr.	1942	Bellows Falls, Vermont
Thomas, Walter M.	1939	Melrose Highlands
Thompson, Harry G., Jr.	1942	Medford
Thompson, Loring M.	1940	West Newton
Thompson, Warren H.	1941	Framingham
Thomson, Gordon A.	1939	Dedham
Thorpe, Paul P.	1941	Framingham
Thorsen, Severin M.	1941	Cambridge
Thwing, Roger W.	1939	Winchester
Tibbetts, Orren	1941	Rangeley, Maine
Tidd, Ellsworth H.	1942	Georgetown
Titus, Ernest W.	1942	Canton
Tobin, Abraham	1941	Chelsea
Todd, Forrest R.	1939	Newburyport
Topalian, Benon S.	1941	Brighton
Torrance, Kenneth R.	1939	Lake Placid, New York
Toucey, Robert	1941	Stratford, Connecticut
Troup, Richard W.	1939	Quincy
Tuffin, George E.	1942	West Hartford, Connecticut
Tweddle, Henry, Jr.	1942	Medford
Urban, John A.	1942	Pittsfield
Van Tuyl, Donald W.	1940	Greenport, New York
Varney, Fenton W.	1942	Scituate Center
Vedoe, J. Douglas	1942	Wollaston
Vespaziani, Albert	1941	East Milton
Vincent, Manuel	1941	Fall River
Vreeland, Kenneth G.	1941	Bayonne, New Jersey
Wagner, Robert J.	1941	Roslindale
Wahl, Louis G.	1942	Malden
Waide, Walter E.	1941	Greenfield
Walker, Raymon G.	1941	East Braintree
Wall, George E.	1942	Lynn
Wallace, Edmund	1942	Claremont, New Hampshire
Wallace, William O.	1941	Newton
Walton, Elmer W.	1940	Newburyport
Warwick, Edward J.	1941	Boston
Waterman, Charles H.	1942	South Portland, Maine
Watt, William H.	1941	Lynn
Weaver, T. Ray	1942	Frankfort, New York
Webber, Roland A.	1942	Boston
Weightman, Herbert G.	1941	White Plains, New York
Wells, Edward L.	1942	Randolph
Wheeler, Dwight E.	1939	Bristol, Connecticut
Whipple, Richard S.	1940	Newtonville
White, John P.	1941	Dorchester
Whites, Andrew W.	1942	Marlboro
Whitney, Gordon B.	1942	Westminster
Whitney, Lawrence E.	1942	Union, Maine
Wiggin, Donald A.	1941	Manchester, New Hampshire
Wilbur, Allen	1939	Hingham
Wilbur, Robert L.	1940	Marlboro

NAME	CLASS	HOME ADDRESS
Wiley, Harold I.	1939	Roxbury
Wilkins, Roger F.	1941	North Attleboro
Willard, Emery D.	1942	Swampscott
Williams, Dean E.	1942	Somerville
Williams, Eugene R.	1942	Winthrop
Williams, Russell L.	1940	Wollaston
Wills, Richard J.	1940	Medfield
Wills, Robert H., Jr.	1942	Quincy
Wills, Wilfred H.	1940	Medfield
Wilson, Allan	1940	Roxbury
Wilson, Herbert A.	1942	Brookline
Wiren, Jacob	1942	Westwood
Wisgirda, Francis	1940	Norwood
Withington, C. Frederick	1942	Malden
Witkus, Frank A.	1939	Dorchester
Wolf, Saul	1941	Dorchester
Wolfendon, William	1942	Methuen
Wollow, Joseph A.	1939	Danielson, Connecticut
Woloshuk, Walter	1942	Mattapan
Wolozin, Matthew	1941	Malden
Wolti, Arne J.	1939	Lebanon, New Hampshire
Wood, Richard M.	1942	Stoneham
Wooding, Edwin R.	1939	North Haven, Connecticut
Woodward, Everett M.	1940	Monroe, Maine
Woodward, Robert B.	1941	Greenfield
Woodworth, John D.	1942	Framingham
Woollacott, Robert A.	1942	Melrose
Worobel, John	1939	Hartford, Connecticut
Wray, Albert W.	1941	Attleboro
Wright, Justin P.	1939	Springfield, Vermont
Wright, Richard E.	1941	Wollaston
Yaffe, Benjamin S.	1941	Chelsea
Yaffee, Philip	1942	Malden
Yager, Edward	1942	Buffalo, New York
Yancey, William D.	1940	Brockton
Young, Bruce W.	1940	Belmont
Young, Donald J.	1942	Roslindale
Young, John R.	1939	Quincy
Young, John S.	1942	Belmont
Yuryan, Joseph B.	1942	Hudson
Zahariades, Michael G.	1941	New Haven, Connecticut
Zalewski, Henry V.	1940	Dorchester
Ziegler, Wilbur C.	1940	Arlington
Zimmerman, Joseph	1940	Malden

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OFFICE HOURS  
DEPARTMENT OF ADMISSIONS  
9 A.M. TO 4 P.M. daily  
Saturday 12.00 N'N  
Wednesday Evenings by  
Appointment

# Northeastern University

College of Engineering

Paste a Small  
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in This Space

## APPLICATION FOR ADMISSION

(A non-returnable fee of five dollars must accompany this application. Make checks, money orders, or drafts payable to Northeastern University)

Boston, Mass.....19

To Director of Admissions:

I (Name in full) .....  
hereby respectfully apply for admission to the

☐ Civil                      ☐ Mechanical                      ☐ Electrical  
☐ Chemical                      ☐ Industrial

Engineering Curriculum of the College of Engineering for the school  
period beginning.....19.....

NOTE: The applicant should fill out the following form (both sides) with care.

Residence..... Street  
Town or City.....  
State..... Tel.....  
Date of Birth..... Age.....  
Place of Birth.....  
Race..... Religion..... Nationality.....  
Graduate of..... High School, Year.....  
Location of High School.....  
Name of Principal.....  
Other high schools you have attended.....  
Names of Principals.....  
If not a graduate, state the years of attendance and why you left.....  
.....  
Father's, Mother's, or Guardian's Name.....  
.....  
Address.....  
Father's work, business or profession.....  
Names and addresses of two other persons, to whom we may direct in-  
quiries concerning you.....  
.....  
.....

Weight.....Height.....  
Have you any physical infirmities? Explain, if any.....

Defects of speech.....

Defects of hearing.....

Defects of sight.....

Bodily infirmities.....

Is your general health good, fair, or poor?.....

Have you done collegiate work elsewhere?.....

If so, name and address of college or university.....

Name of person who will furnish transcript of your college record.....

Do you expect advance credit for past collegiate work?.....

List all athletics and other extra curricula high school activities you  
have engaged in.....

Names and addresses of all past employers with brief description of  
each job, length of employment, and wages received:.....

Date .....

Milton J. Schlagenhauf, Director of Admissions  
Northeastern University  
360 Huntington Avenue  
Boston, Mass.

Dear Sir:

Please send me additional information on the following points:

.....

.....

.....

.....

.....

.....

.....

.....

Name .....

Street and Number .....

Town or City .....

State .....





# NORTHEASTERN UNIVERSITY

## COLLEGE OF LIBERAL ARTS

Offers a broad program of college subjects serving as a foundation for the understanding of modern culture, social relations, and technical achievement. Varied opportunities available for vocational specialization. Degree: Bachelor of Science or Bachelor of Arts.

## COLLEGE OF ENGINEERING

Offers curricula in Civil, Mechanical (with Diesel, Air Conditioning, and Aeronautical options), Electrical, Chemical, Industrial Engineering, and Engineering Administration. Classroom study is supplemented by experiment and research in well-equipped laboratories. Degree: Bachelor of Science in the professional field of specialization.

## COLLEGE OF BUSINESS ADMINISTRATION

Offers three curricula: Accounting, Banking and Finance, and Business Management. Each curriculum represents in itself a broad survey of business technique, differing from the others chiefly in emphasis. Degree: Bachelor of Science in Business Administration.

---

## SCHOOL OF LAW

Offers day and evening undergraduate programs admitting those who present a minimum of two years of college work, each program leading to the degree of Bachelor of Laws. Also graduate program in the evening leading to the degree of Master of Laws. Co-educational.

## SCHOOL OF BUSINESS

Offers curricula through evening classes in Accounting, Management, Law and Business Management, and Engineering and Business leading to the degree of Bachelor of Business Administration in specified fields or the Bachelor of Commercial Science in Law and Business Management. Preparation for C.P.A. Examinations. Shorter programs may be arranged. Co-educational.

## PRE-LEGAL PROGRAM

Offers in connection with the College of Liberal Arts special day and evening programs providing the equivalent of two years of college work and preparing for admission to the undergraduate programs of the School of Law. Co-educational in the evening.

---

The Colleges of Liberal Arts, Engineering, and Business Administration offer day programs for men only and are conducted on the co-operative plan. After the freshman year students may alternate their periods of study with periods of work in the employ of business or industrial concerns at ten-week intervals. Under this plan they gain valuable experience and earn a large part of their college expenses.

---

In addition to the above schools the University has affiliated with it and conducts: the Lincoln Technical Institute offering, through evening classes, courses of junior college grade in various fields of engineering; and the Lincoln Preparatory School, an evening school preparing for college entrance and offering other standard high school programs.

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For further information regarding any of the above schools, address

NORTHEASTERN UNIVERSITY

360 Huntington Avenue, Boston, Massachusetts

Telephone: KENmore 5800



# Northeastern University

DAY DIVISION

## COLLEGE OF BUSINESS ADMINISTRATION

1939-1940



BOSTON, MASSACHUSETTS

January, 1939



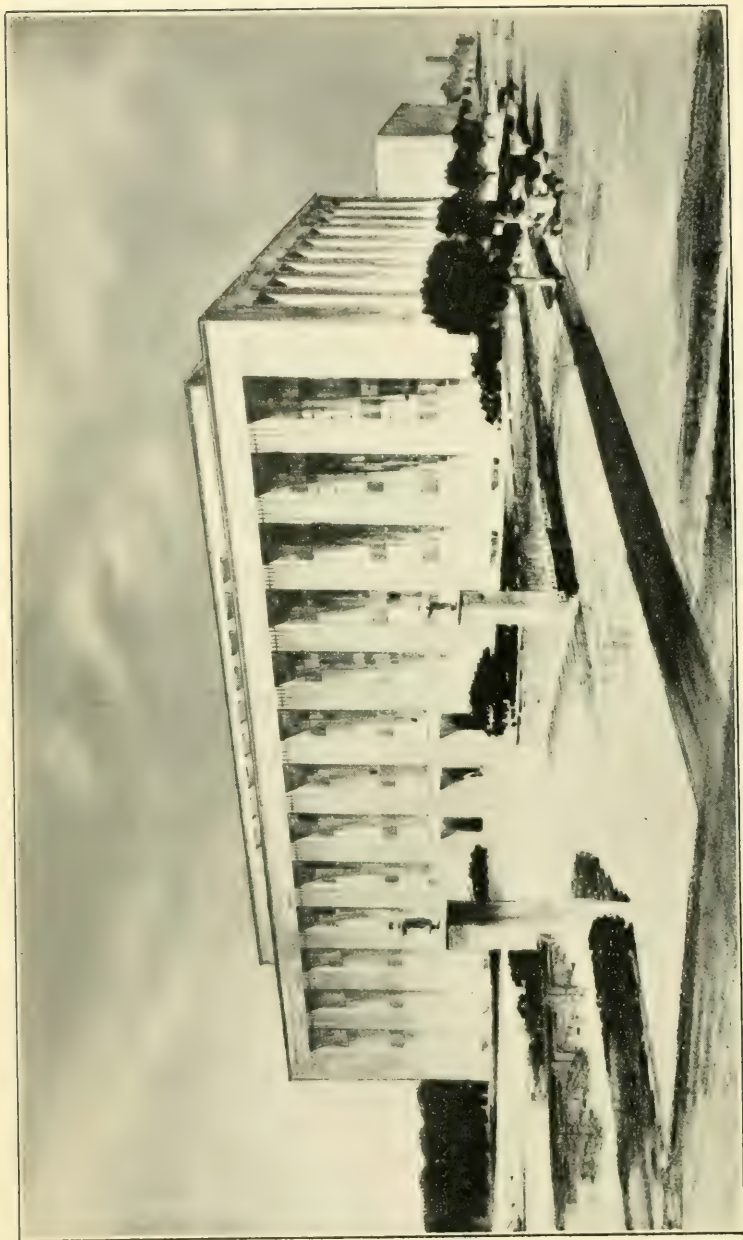


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- (b) For general endowment
- (c) For specific purposes which may especially appeal to the donor.

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WEST BUILDING — NORTHEASTERN UNIVERSITY

# NORTHEASTERN UNIVERSITY

## DAY DIVISION

### COLLEGE OF BUSINESS ADMINISTRATION

*Conducted on the Co-operative Plan*

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# Freshman Calendar, 1939-1940

## SEPTEMBER

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

## OCTOBER

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

## NOVEMBER

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

## DECEMBER

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

## JANUARY

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

## FEBRUARY

S	M	T	W	T	F	S
					1	2
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29		

## MARCH

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

## APRIL

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

## MAY

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

## JUNE

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

## JULY

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

## AUGUST

S	M	T	W	T	F	S
					1	2
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Days on which college exercises are held are indicated thus: **1, 2, 3.**

Sundays, holidays, and vacations are indicated thus: 1, 2, 3.

# Upperclass Calendar, 1939-1940

## SEPTEMBER

S	M	T	W	T	F	S
					①	②
③	④	⑤	⑥	⑦	⑧	⑨
⑩	11	12	13	14	15	16
⑰	18	19	20	21	22	23
⑳	25	26	27	28	29	30

## OCTOBER

S	M	T	W	T	F	S
①	2	3	4	5	6	7
⑧	9	10	11	⑫	13	14
⑮	16	17	18	19	20	21
⑳	23	24	25	26	27	28
㉑	30	31				

## NOVEMBER

S	M	T	W	T	F	S
			1	2	3	4
⑤	6	7	8	9	10	11
⑫	13	14	15	16	17	18
⑰	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>
㉑	<b>27</b>	<b>28</b>	<b>29</b>	③①		

## DECEMBER

S	M	T	W	T	F	S
					1	2
③	4	5	6	7	8	9
⑩	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>
⑰	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>
⑳	㉑	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>
㉑						

## JANUARY

S	M	T	W	T	F	S
	①	2	3	4	5	6
⑦	8	9	10	11	12	13
⑭	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>
㉑	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>
㉑	29	30	31			

## FEBRUARY

S	M	T	W	T	F	S
				1	2	3
④	5	6	7	8	9	10
⑪	12	13	14	15	16	17
⑱	19	20	21	㉑	23	24
㉑	26	27	28	29		

## MARCH

S	M	T	W	T	F	S
					1	2
③	4	5	6	7	8	9
⑩	11	12	13	14	15	16
⑰	18	19	20	21	22	23
㉑	25	26	27	28	29	30
㉑						

## APRIL

S	M	T	W	T	F	S
	1	2	3	4	5	6
⑦	8	9	10	11	12	13
⑭	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>
㉑	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>
㉑	<b>29</b>	<b>30</b>				

## MAY

S	M	T	W	T	F	S
			1	2	3	4
⑤	6	7	8	9	10	11
⑫	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>
⑰	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>
㉑	<b>27</b>	<b>28</b>	<b>29</b>	㉑	31	

## JUNE

S	M	T	W	T	F	S
						1
②	3	4	5	6	7	8
⑨	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>
⑱	⑰	⑱	⑲	㉑	㉑	㉑
㉑	㉑	㉑	㉑	㉑	㉑	㉑
㉑						

## JULY

S	M	T	W	T	F	S
	①	②	③	④	⑤	⑥
⑦	⑧	⑨	⑩	⑪	⑫	⑬
⑭	⑮	⑯	⑰	⑱	⑲	⑳
㉑	㉑	㉑	㉑	㉑	㉑	㉑
㉑	㉑	㉑	㉑			

## AUGUST

S	M	T	W	T	F	S
				①	②	③
④	⑤	⑥	⑦	⑧	⑨	⑩
⑪	⑫	⑬	⑭	⑮	⑯	⑰
⑱	⑲	㉑	㉑	㉑	㉑	㉑
㉑	㉑	㉑	㉑	㉑	㉑	㉑

Days on which Division A students are in college are indicated thus: 1, 2, 3.

Days on which Division B students are in college are indicated thus: 1, 2, 3.

Sundays, holidays, and summer periods are indicated thus: ①, ②, ③.

See page 5 for statement of summer review periods and upperclass vacations.



# Calendar for the College Year, 1939-1940

1939

- AUGUST 30 *Wednesday*. Entrance condition examinations.
- SEPTEMBER 4 *Monday*. Labor Day. (College exercises omitted.)
- SEPTEMBER 7 *Thursday*. Registration and opening of college for freshmen. Students failing to register promptly on September 7 will be charged a late registration fee of five dollars (\$5).
- SEPTEMBER 11 *Monday*. Opening of college for Division A upperclassmen.
- OCTOBER 12 *Thursday*. Columbus Day. (College exercises omitted.)
- NOVEMBER 20 *Monday*. Opening of college for Division B upperclassmen.
- NOVEMBER 29 *Wednesday*. College exercises omitted after 1:00 p.m.
- NOVEMBER 30 *Thursday*. Thanksgiving Day. (College exercises omitted.)
- DECEMBER 25 *Monday*. Christmas Day. (College exercises omitted.)
- DECEMBER 21 }  
JANUARY 3 } Vacation for freshmen.



1940

- JANUARY 1 *Monday*. New Year's Day. (College exercises omitted.)
- JANUARY 29 *Monday*. Second semester begins for freshmen and Division A upperclassmen.
- FEBRUARY 22 *Thursday*. Washington's Birthday. (College exercises omitted.)

APRIL	6	<i>Saturday.</i> College year ends for Division A upperclassmen.
APRIL	8	<i>Monday.</i> Second semester begins for Division B upperclassmen.
MAY	25	<i>Saturday.</i> College year ends for freshmen.
MAY	30	<i>Thursday.</i> Memorial Day. (College exercises omitted.)
JUNE	15	<i>Saturday.</i> College year ends for Division B upperclassmen.
JUNE	16	<i>Sunday.</i> Baccalaureate Sermon.
JUNE	17	<i>Monday.</i> Bunker Hill Day. (College exercises omitted.)
JUNE	18	<i>Tuesday.</i> Commencement. Review courses or vacation begins for Division A upperclassmen. Summer period of co-operative work begins for Division B upperclassmen.
JULY	4	<i>Thursday.</i> Independence Day. (College exercises omitted.)
JULY	13	<i>Saturday.</i> Review courses end for Division A upperclassmen.
JULY	29	<i>Monday.</i> Vacation begins for Division B upperclassmen. Summer period of co-operative work begins for Division A upperclassmen.
AUGUST	12	<i>Monday.</i> Review courses begin for freshmen and Division B upperclassmen.
SEPTEMBER	2	<i>Monday.</i> Labor Day. (College exercises omitted.)
SEPTEMBER	5	<i>Thursday.</i> Registration and opening of college for freshmen. Students failing to register promptly on September 5 will be charged a late registration fee of five dollars (\$5).
SEPTEMBER	7	<i>Saturday.</i> Review courses end for Division B upperclassmen and for freshmen.
SEPTEMBER	9	<i>Monday.</i> Opening of college year 1940-1941.

# The Northeastern University Corporation

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*Vice-Chairman*

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JAMES DEAN  
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TIMOTHY JAMES FALVEY  
FREDERIC HAROLD FAY  
ALLAN FORBES  
EDWARD J. FROST  
FRANKLIN WILE GANSE  
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MERRILL GRISWOLD  
HENRY INGRAHAM HARRIMAN

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HOWARD MUNSON HUBBARD  
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CLARENCE LUCIAN NEWTON  
OLAF OLSEN  
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MATTHEW POROSKY  
FREDERICK SANFORD PRATT  
HARRY WENDELL PROUT  
SIDNEY RABINOVITZ  
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ROBERT BILLINGS RUGG  
LEVERETT SALTONSTALL  
RUSSELL HENRY STAFFORD  
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*Vice-President of the University*

EVERETT AVERY CHURCHILL, A.B., Ed.D.  
*Vice-President of the University*

## Faculty

### Administrative Officers

FRANK PALMER SPEARE, M.H., LL.D.	<i>President of the University</i>
Office 186 West Building	Res. 90 Commonwealth Ave., Boston
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Office 115 West Building	Res. 3 Preble Gardens Rd., Belmont
CARL STEPHENS ELL, A.B., M.S., Ed.M., Sc.D.	<i>Vice-President of the University and Dean of the Day Division</i>
Office 152 West Building	Res. 21 Beaumont Ave., Newtonville
WILFRED STANLEY LAKE, A.B., M.A., Ph.D.	<i>Dean of Instruction</i>
Office 352 East Building	Res. 69 Columbus St., Newton Hlds.
HAROLD WESLEY MELVIN, A.B., M.A.	<i>Dean of Students</i>
Office 256 West Building	Res. 44 Houston Ave., Milton
WINTHROP ELIOT NIGHTINGALE, A.B., S.B., Ed.M.	<i>Director of Co-operative Work</i>
Office 253 West Building	Res. 136 Dickerman Rd., Newton Hlds.
EDWARD SNOW PARSONS, S.B., Ed.M.	<i>Director of Student Activities</i>
Office 355 West Building	Res. 19 Hardy Ave., Watertown
JOHN BUTLER PUGSLEY, A.B.	<i>Director of School Administration</i>
Office 254 West Building	Res. 23 Hardy Ave., Watertown
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### Administrative Staff

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Office 354 West Building	Res. 25 Harley St., Dorchester
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	Telephone: Everett 1172-W
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HENRY ARTHUR KONTOFF, M.D.	College Physician
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Office 355 West Building	Res. 178 Harriet Ave., Quincy
RUDOLF OSCAR OBERG, S.B., Ed.M.	Alumni Secretary
Office 253 West Building	Res. 37 Walker St., Atlantic
JOHN KENNETH STEVENSON, B.C.S.	Purchasing Agent
Office 117 West Building	Res. 101 Goden St., Belmont
MYRA EDNA WHITE	Librarian
Library, East Building	Res. 118 Hemenway St., Boston

## Instructing Staff

### Professors

ROBERT BRUCE, B.C.S., M.C.S.	Professor of Accounting
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ALFRED D'ALESSANDRO, B.C.S., LL.B., C.P.A., M.B.A.	Professor of Accounting and Chairman of the Department
Office 350 East Building	Res. 46 Radcliffe Rd., Belmont
STANLEY GODDARD ESTES, A.B., M.A., Ph.D.	Professor of Psychology and Chairman of the Department
Office 256 West Building	Res. 60 Pinckney St., Boston
CHARLES WILLIAM HAVICE, A.B., M.A., S.T.B., Ph.D.	Professor of Sociology and Chairman of the Department
Office 357 West Building	Res. 502 School St., Belmont
JULIAN ERNEST JACKSON, A.B., LL.B., M.B.A.	Professor of Business Management and Chairman of the Department
Office 350 East Building	Res. 109 Grove St., Auburndale
ASA SMALLIDGE KNOWLES, A.B., M.A.	Professor of Industrial Engineering
Office 100 South Building	Res. 99 Gilbert Rd., Belmont
WILFRED STANLEY LAKE, A.B., M.A., Ph.D.	Professor of Economics and Chairman of the Department
Office 352 East Building	Res. 69 Columbus St., Newton Hlds.
HAROLD WESLEY MELVIN, A.B., M.A.	Professor of English and Chairman of the Department
Office 256 West Building	Res. 44 Houston Ave., Milton
JOSEPH SPEAR, A.B., M.A.	Professor of Mathematics and Chairman of the Department
Office 325 West Building	Res. 31 Matchett St., Brighton

### Associate Professors

ROGER STANTON HAMILTON, A.B., M.A.	Associate Professor of Economics
Office 363 East Building	Res. 50 Peterborough St., Boston
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### Assistant Professors

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RUDOLF OSCAR OBERG, S.B., Ed.M.	Assistant Professor of Co-ordination
Office 253 West Building	Res. 37 Walker St., Atlantic



NORRIS WHITFIELD POTTER, JR., A.B., M.A.	<i>Assistant Professor of History</i>
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	<i>Head Coach of Football and Basketball</i>
Office 355 West Building	Res. 12 Mason Rd., Watertown
GEORGE RAYMOND FENNELL, S.B., M.B.A.	<i>Instructor in Business Management</i>
Office 150 West Building	Res. 42 Fremont Ave., Everett
HERBERT WENDELL GALLAGHER, S.B.	<i>Head Coach of Hockey and Baseball</i>
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Office 350 East Building	Res. 6 Home St., Lawrence
PAUL EVERETT REYNOLDS, A.B., Ph.D.	<i>Instructor in English</i>
Office 453 East Building	Res. 15 Linden St., Framingham
JOHN WILLS TUTHILL, S.B., M.B.A.	<i>Instructor in Banking and Finance</i>
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Office 350 East Building	Res. 9 Centre St., Brookline

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## Faculty Committees

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WINTHROP E. NIGHTINGALE  
JOHN B. PUGSLEY

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WINTHROP E. NIGHTINGALE  
EDWARD S. PARSONS

JOSEPH SPEAR

## 4. Co-operative Work

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GEORGE W. TOWLE  
WILLIAM C. WHITE

## 5. Student Activities

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NORRIS W. POTTER, JR.  
JOSEPH SPEAR

ELIOT F. TOZER

## 6. Instruction

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WILFRED S. LAKE

HAROLD W. MELVIN  
ROLAND C. PORTER  
JOSEPH SPEAR

## 7. Day Division Council

CARL S. ELL, *Chairman*  
HENRY B. ALVORD  
CHESTER P. BAKER  
ALFRED D'ALESSANDRO  
STANLEY G. ESTES  
CHARLES W. HAVICE  
JULIAN E. JACKSON  
ASA S. KNOWLES  
WILFRED S. LAKE  
HAROLD W. MELVIN  
STANLEY D. MIROYIANNIS

CARL F. MUCKENHOUP  
WINTHROP E. NIGHTINGALE  
EDWARD S. PARSONS  
ROLAND G. PORTER  
JOHN B. PUGSLEY  
MILTON J. SCHLAGENHAUF  
JOSEPH SPEAR  
ELIOT F. TOZER  
ARTHUR A. VERNON  
WILLIAM C. WHITE  
JOSEPH W. ZELLER

## Office and Secretarial Staff

FLORENCE ELSIE AVELLAR	70 Fenway, Boston
<i>Secretary to the Treasurer of the University—116W</i>	
LULU THYNG BRINCKLOW	109 Peterborough St., Boston
<i>Secretary to the Director of Admissions—150W</i>	
MARJORIE ELIZABETH BUNKER	38 Lakewood Rd., Newton Hlds.
<i>Publicity Office—352W</i>	
HELEN MUIR COOLBROTH	11 Windsor Rd., West Somerville
<i>University Press, South Building</i>	
VIRGINIA CUSHING DARLING	23 Brimmer St., Boston
<i>General Offices of the University—115W</i>	
THELMA GERTRUDE DUNN	30 Freeman Pl., Needham
<i>Bookkeeper, Treasurer's Office—115(A)W</i>	
DAISY MILNE EVERETT	1095 Highland Ave., Needham Heights
<i>Bookkeeper, Treasurer's Office—115(A)W</i>	
RUTH PHILLIPS FIOTT	173 Marianna St., East Lynn
<i>Admissions Office—150W</i>	
MILDRED CURTIS GARFIELD	2142 Commonwealth Ave., Auburndale
<i>Secretary to the Dean—152W</i>	
EDNA JANE GARRABRANT	8 Maynard St., Arlington
<i>Secretary to the Director of Co-operative Work—253W</i>	

LUCY GORHAM HAGER	34 Linnaean St., Cambridge
Assistant Librarian—Library, East Building	
MARJORIE DAYTON HOLCOMB	18 Solon St., Newton Hlds.
Secretary to the President—186W	
ELSIE HINCKLEY HUNT	100 Linden St., Allston
Admissions Office—150W	
BARBARA KNIGHT	254 Clifton St., Malden
Secretary to the Dean of Instruction—352E	
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Cashier, Treasurer's Office—115W	
MARGARET LOUISE MARCHANT	45 Lincoln St., Winchester
Admissions Office—150W	
FLORENCE MASKELL	42 Brush Hill Rd., Milton
Co-operative Work Office—253W	
DOROTHY BRETT MASON	15 Wenham St., Jamaica Plain
School Administration Office—254W	
DOROTHY MILNE MURRAY	204 Fair Oak Park, Needham
Secretary to the Director of Student Activities—355W	
ALYCE ANN NICHOLS	507 Chestnut St., Needham
Bookkeeper, Treasurer's Office—115(A)W	
CAROLINE FRANCES PETTINGELL	1654 Massachusetts Ave., Cambridge
Bookkeeper, School Administration Office—254W	
MARJORIE GRAFFTE PROUT	1179 Boylston St., Boston
Office of the Dean—152W	
MADelyn EDYTHE RALPH	64 Beach Ave., Swampscott
Secretary to the Executive Secretary—153W	
GRETCHEN DOUGLASS RANDALL	48 Milk St., Newburyport
School Administration Office—254W	
JESSIE PAINE RHODES	2 Perkins Sq., Jamaica Plain
Secretary to the Director of School Administration	
PRISCILLA SPEARE	69 Pelham St., Newton Centre
Secretary to the Dean of Students—256W	
RUBY KATHLEEN SWEETLAND	139 College Ave., Somerville
Student Activities Office—355W	
JEANETTE THAYER	4 Hamilton Rd., Waltham
Co-operative Work Office—253W	
MARY DIXON TURNER	163 Forest St., Melrose
Student Union Office—357W	
GRACE LISCOM WATKINS	76 Glendale St., Dorchester
Assistant Librarian—Library, East Building	
MARGARET MARY WEIR	41 Stewart St., Quincy
Admissions Office—150W	

### Office and Laboratory Assistants

FRANCIS R. ARCHIBALD	Assistant in the Library
JOSEPH P. BEATON	Assistant in the Department of Admissions
JOHN R. BYRNE	Assistant in the Department of Admissions
JACK H. CASWELL	Assistant in the Student Activities Office
JAMES COLLIGEN	Assistant in the Student Union
JAMES J. CONNOLLY	Assistant in the Student Activities Office
GEORGE F. FORBES	Assistant in the Library
CHARLES V. HAAS	Assistant in the Library
MERRILL D. HART	Assistant in the Office of the Dean
GARDNER W. HOLMES, JR.	Assistant in the Department of Admissions
RUSSELL T. KENNEFICK	Assistant in the Office of the Dean
WILLIAM H. LITTLE	Assistant in the Student Union
ARTHUR O. MARTENSEN	Assistant in the Department of Co-operative Work
HOWE C. MONTEITH	Assistant in the Library
STANLEY L. ROGERS	Assistant in the Department of Admissions
LORING M. THOMPSON	Assistant in the Office of the Dean

## University Lecturers

SANFORD BATES  
FORMER SUPERINTENDENT OF FEDERAL PRISONS  
*"Leaders for Leisure"*

ROLLO WALTER BROWN  
AUTHOR, LECTURER  
*"If I Should Write Your Biography"*

SMEDLEY D. BUTLER  
GENERAL, U. S. MARINE CORPS, RETIRED  
*"War Is a Racket"*

BERNARD C. CLAUSEN  
MINISTER, FIRST BAPTIST CHURCH, PITTSBURGH  
*"Fight Somebody Your Size"*

J. ANTON DE HAAS  
PROFESSOR OF INTERNATIONAL RELATIONSHIPS, HARVARD UNIVERSITY  
*"Where Do We Go From Here?"*

LLOYD C. DOUGLAS  
AUTHOR, LECTURER  
*"Experiences of an Author"*

HARRY N. HOLMES  
NATIONAL YOUTH RADIO PREACHER  
*"Using Big Maps in a Shrinking World"*

H. V. KALTENBORN  
EDITOR, AUTHOR, NEWS COMMENTATOR  
*"Kaltenborn Edits the News"*

TEHYI HSIEH  
STATESMAN, ECONOMIST, AUTHOR  
*"Storms over Asia"*

FRANK KINGDON  
PRESIDENT, NEWARK UNIVERSITY  
*"Giants and Grasshoppers"*

HENRY CABOT LODGE, JR.  
UNITED STATES SENATOR FROM MASSACHUSETTS  
*"The National Outlook"*

J. EDGAR PARK  
PRESIDENT, WHEATON COLLEGE  
*"The Secret of Success"*

GERHART SEGER  
FORMER MEMBER OF GERMAN REICHSTAG  
*"The Source of Hitler's Strength"*

RALPH W. SOCKMAN  
MINISTER, CHRIST CHURCH, NEW YORK CITY  
*"The New Patriotism"*

HOWARD THURMAN  
PROFESSOR OF PHILOSOPHY, HOWARD UNIVERSITY  
*"The Challenge of India"*

## Chapel Preachers

DR. CHARLES N. ARBUCKLE  
MINISTER, FIRST BAPTIST CHURCH, NEWTON

DR. RICHARD H. BENNETT  
MINISTER, PAYSON PARK CHURCH, BELMONT

DR. EDWIN PRINCE BOOTH  
PROFESSOR OF CHURCH HISTORY, BOSTON UNIVERSITY SCHOOL OF THEOLOGY

DR. DWIGHT BRADLEY  
MINISTER, UNION CONGREGATIONAL CHURCH, BOSTON

REVEREND ROBERT WOOD COE  
MINISTER, LEYDEN CONGREGATIONAL CHURCH, BROOKLINE

RABBI BERYL D. COHON  
RABBI, TEMPLE ISRAEL, BOSTON

DR. FRANK E. DUDDY  
MINISTER, NORTH CONGREGATIONAL CHURCH, CAMBRIDGE

DR. NEWTON C. FETTER  
MINISTER TO BAPTIST STUDENTS IN GREATER BOSTON

DR. C. LESLIE GLENN  
MINISTER, CHRIST CHURCH, CAMBRIDGE

REVEREND NORMAN D. GOEHRING  
MINISTER TO LUTHERAN STUDENTS IN GREATER BOSTON

REVEREND WILLIAM H. GYSAN  
MINISTER TO UNITARIAN STUDENTS IN GREATER BOSTON

DR. CHARLES W. HAVICE  
EXECUTIVE SECRETARY, NORTHEASTERN STUDENT UNION

DR. ARTHUR LEE KINSOLVING  
MINISTER, TRINITY CHURCH, BOSTON

REVEREND CARL H. KOPF  
MINISTER, MOUNT VERNON CHURCH, BOSTON

DR. ASHLEY D. LEAVITT  
MINISTER, HARVARD CONGREGATIONAL CHURCH, BROOKLINE

DR. ELMER A. LESLIE  
PROFESSOR OF HEBREW AND OLD TESTAMENT LITERATURE, BOSTON UNIVERSITY

REVEREND FATHER MADDUX  
PRIEST, CHURCH OF ST. JOHN THE EVANGELIST, BOSTON

DR. BOYNTON MERRILL  
MINISTER, SECOND CHURCH, NEWTON

REVEREND SAMUEL H. MILLER  
MINISTER, OLD CAMBRIDGE BAPTIST CHURCH, CAMBRIDGE

DR. PHILLIPS E. OSGOOD  
MINISTER, EMMANUEL CHURCH, BOSTON



# Northeastern University

## *Purpose and Program*

NORTHEASTERN UNIVERSITY from the outset has been developed around the simple yet practical purpose of meeting human needs in distinctive and serviceable ways, maintaining flexibility in program and organization in order that constant adjustment could be made to changing needs.

Pursuant to this purpose, the University has evolved a definite plan of education which embraces primarily Co-operative Education by day and Adult Education by night. So far as the New England States are concerned, Northeastern University is the only institution whose day colleges, other than the School of Law, are conducted under the Co-operative Plan. The several schools and programs of the University are operated either under the name "Northeastern University" or by its affiliated schools, the Lincoln Schools, and The Huntington Day School for Boys. The following is a brief outline of the principal types of educational opportunities offered.

1. In the field of Co-operative Education there are three day colleges — the College of Liberal Arts, the College of Engineering, and the College of Business Administration. All of these colleges offer five year curricula. The College of Liberal Arts offers majors in the usual fields of the arts and the sciences leading to the degrees of Bachelor of Arts and Bachelor of Science. The College of Engineering, one of the largest engineering colleges in the United States, has curricula in Civil, Mechanical (with Diesel, Air-Conditioning, and Aeronautical options), Electrical, Chemical, and Industrial Engineering. The College of Business Administration has curricula in Accounting, Banking and Finance, and Business Management. The College of Engineering and the College of Business Administration confer the degree of Bachelor of Science with specification indicating the field of specialization. The Co-operative Plan under which all of these day colleges operate enables the student to alternate regular periods of classroom instruction with supervised employment in an industrial or commercial position, thus combining theory and practice in an exceedingly effective manner. Apart from the educational advantages of the Co-operative Plan is the opportunity for self-support while the student is pursuing his studies at Northeastern University. During the co-operative periods, students not only gain experience but are also paid for their

services. Approximately three hundred business and industrial concerns co-operate with Northeastern University in making this program effective.

2. The School of Law conducts both a day and an evening undergraduate program which prepares for admission to the bar and for the practice of the law and leads to the degree of Bachelor of Laws. It also conducts a graduate program in the evening leading to the degree of Master of Laws.
3. The Adult Education Program has been developed in the evening work of the School of Law as indicated above and in the School of Business whose classes meet in the evening. The School of Business has curricula in Management, Accounting, Law and Business Management and Engineering and Business. This School awards the Bachelor of Business Administration degree with specification and the Bachelor of Commercial Science degree in Law and Business Management. A pre-legal program is also available in the evening offering the equivalent of two years of college work and preparing for admission to the School of Law.
4. In order that larger groups of men and women might be served through its evening schools, Northeastern University operates divisions of the School of Law and the School of Business in co-operation with the Young Men's Christian Association in Worcester and Springfield and of the School of Business in co-operation with the Providence Young Men's Christian Association. With the establishment of the divisions, thoroughgoing methods of supervision were instituted and have been consistently followed and improved, with the result that the divisional work is conducted upon a highly efficient basis.
5. The Adult Education Program has also been developed through the Lincoln Schools, which are affiliated with and conducted by Northeastern University. The classes in these schools are held at convenient evening hours. The Lincoln Technical Institute offers curricula upon a junior college level in various phases of engineering; whereas the Lincoln Preparatory School, accredited by the New England College Entrance Certificate Board, prepares students for admission to college and offers other standard high school programs.
6. The Huntington Day School for Boys, also affiliated with and conducted by Northeastern University, is the outgrowth of a demand in the city of Boston for an urban preparatory

school with high educational standards which would furnish thorough preparation for admission to the leading colleges and universities. While easily accessible to the various sections of Boston and to the suburbs, it has the facilities of a country day school and offers a country day school program. This School is one of the leading preparatory schools of the country.



### *Organization*

Northeastern University is incorporated as a philanthropic institution under the General Laws of Massachusetts. The State Legislature, by special enactment, has given the University general degree granting powers.

The Corporation of Northeastern University consists of men who occupy responsible positions in business and the professions. This Corporation elects from its membership a Board of Trustees in whom the control of the institution is vested. The Board of Trustees has four standing committees: (a) an Executive Committee which serves as an Ad Interim committee between the regular meetings of the Board of Trustees and has general supervision of the financial and educational policies of the University; (b) a Committee on Housing which has general supervision over the buildings and equipment of the University; (c) a Committee on Funds and Investments which has the responsibility of administering the funds of the University; (d) a Development Committee which is concerned with furthering the development plans of the University.

The Board of Trustees has also created, through its by-laws, an Executive Council, consisting of the President, the Secretary, and the two Vice-Presidents of the University. To the Executive Council the Board has allocated broad powers.

# Northeastern University and Affiliated Schools

## Statistical Summary

1937-1938

	Administrative Officers and Faculty	Students
I. General Administration	8	
II. Northeastern University		
College of Liberal Arts	79	1905
College of Engineering		
College of Business Administration		
School of Law	46*	1949*
School of Business	101*	1531*
III. Schools affiliated with and conducted by Northeastern University		
Lincoln Schools	52	1048
Huntington Day School for Boys		
Regular Term	16	197
Summer Term	9	122
	<hr/>	<hr/>
Total	311	6752
Less Duplicates	39	460
	<hr/>	<hr/>
Net Total	272	6292

\*These figures include the administrative officers, faculties and students of the Divisions of the University in Worcester, Springfield and Providence.

# The Co-operative Plan

## How It Works

THE co-operative plan works in the following manner. Upperclassmen are divided into two nearly equal groups, one of which is called Division A and the other Division B. Each man is assigned a job with some business or industrial concern. So far as possible each man in one Division is paired with a man in the other Division, so that the two, by taking turns, may occupy one job throughout the entire year. In September the Division A student returns to the University for ten weeks of classroom work. At the end of that time he goes out to work ten weeks with a co-operating firm. His place at the University is then taken by his *alternate*, the corresponding Division B student. When ten weeks more have passed, the Division A man returns to college, and the Division B man returns to the co-operative job. The alternation of work and classroom study continues throughout the year, except that one working period in the summer for each division is six weeks in length instead of ten. An upperclassman thus has twenty weeks at college, twenty-six weeks at co-operative work, and six weeks of vacation each year.

## Faculty Co-ordinators

Students are assigned to a co-ordinator, who interviews them periodically during their freshman year for the purpose of determining their background, abilities, temperaments, and aptitudes. During these interviews the co-ordinator discusses various fields of activity and answers such questions as the students may have in regard to the many phases of business and industry. Each student is studied in the light of his physical condition, scholastic ability, and other factors affecting his probable success in vocational life. These interviews culminate in a mutual agreement between the student and his co-ordinator regarding the field of co-operative work in which the student is to be placed. During his upperclass years the student continues to have frequent conferences with his co-ordinator regarding vocational adjustments and personal problems. In this way the progress of every student is observed and co-ordinated with his college work to the end that he may obtain maximum values from his training at Northeastern.



### *Placement*

The co-ordinator visits co-operative firms and arranges with them for the employment of the students under his charge. The range of opportunities available to Northeastern students is wide, including practically all phases of industrial life. As a general rule, sophomores are placed upon routine and laborious jobs through which they may prove their fitness for more responsible work. The jobs upon which Northeastern students are employed are in no sense protected opportunities. They are regular jobs under actual business conditions and are held in competition with other sources of supply. The only special privilege accorded Northeastern students is that of attending college on the co-operative plan. The University expects every student to stand on his own feet while he is on co-operative work, and advancement to the more responsible jobs is based entirely upon merit.

### *Supervision and Guidance*

While the University does not adopt a paternal attitude toward co-operative work, it nevertheless assumes certain responsibilities toward students and co-operating firms. Co-ordinators visit each job in order that the employer may report upon the student's achievement and that necessary adjustments may be made. Co-ordinators supervise the assignment of students to various jobs and in conjunction with employers arrange for promotions and training schedules. Problems that arise on co-operative work are adjusted by mutual agreement of co-ordinator, student, and employer. In the event of special difficulties or dissatisfaction, the case may be adjusted by the Committee on Co-operative work, which comprises several members of the faculty.

Through a series of co-operative work reports prepared during their working periods, students are led to analyze their jobs and to develop a thoughtful and investigative attitude toward their working environment. A most important phase of co-operative work is the opportunity afforded for guidance by the frank discussion of actual problems encountered on the job. The intimate contact between co-ordinator and student is of great worth in helping the student to get the most value from each co-operative work assignment. While the University endeavors to provide every possible opportunity for its students, it expects them at the same time to take the initiative and to assume the responsibility involved in their individual development. To every student are available the counsel and guidance of the faculty, and every resource at its disposal. But the faculty does not coerce students who are uninterested or unwilling to think for themselves.

The co-operative plan is thus designed specifically to provide actual working conditions which shall afford the student practical experience, give meaning to his program of study, and train him in reliability, efficiency, and team work.

### *Correlation of Theory and Practice*

Co-operating companies employ the students in the various departments of their establishments. The training is thorough. To derive the greatest value from his co-operative work the student is advised to continue in the employ of his co-operating firm for *at least one year* after graduation, since certain types of work which would afford him valuable experience cannot be made available to him while he is alternating between work and study. Statistics compiled over a period of many years show that on the average about fifty per cent of each graduating class do remain with their co-operating employers after graduation.

### *Co-operative Work Reports*

The values to be derived from the practical experiences are further enhanced by required report writing. These co-operative work reports are written during the working periods by all co-operative students. A complete job analysis is required as the first report written on any new co-operative work assignment. Subjects of other reports are selected by the student after conference with his Co-ordinator of Co-operative Work, by whom they must be approved. The reports are designed to encourage observation and investigation on the part of the students and to help them to appreciate more fully the extent and value of their experience. These reports are carefully read by the Co-ordinator and are discussed with the student during the following college period. Exceptionally valuable results are obtained from these reports. The value derived must necessarily be directly proportional to the conscientious and intelligent concentration of effort by the student upon this phase of the work.

### *Co-operative Work Records*

Complete and detailed records are kept of the co-operative work of each student. They are based upon reports made by the employer at the end of each working period; upon occasional personal interviews between the employer and the Co-ordinator; and upon various evidences of the student's attitude toward all the phases of his co-operative work. It is not possible for the student to secure a degree unless this part of the curriculum is completed satisfactorily. These records of practical experience serve as a valuable future reference for the Alumni Placement Division of the Department.

### *Positions Available*

Because of uncertainties of business conditions, as well as other reasons beyond its control, the University cannot and does not guarantee to place students. Although the University in no way discriminates among students of various races and religions, considerable difficulty has been experienced in placing at co-operative work the members of certain racial groups and students who are physically handicapped. However, past experience has demonstrated that students who are willing and capable of adapting themselves to existing conditions are almost never without employment except in periods of severe industrial depression.

### *Earnings*

The rates of pay for students are low, primarily because the students are given the privilege of attending college on the co-operative plan. The employer thus feels justified in devoting time to the instruction of the students and in transferring them at reasonable intervals from one department to another.

For budgeting purposes the following scale of wages may be considered as the *minimum rates* to be paid the students in times of normal business.

\$12 per week for second year students

\$14 per week for third year students

\$16 per week for fourth and fifth year students

Statistical experience shows that the pay actually received by students averages appreciably above these figures.

### *Location of Work*

It is the policy of the University to assign students to co-operative work within commuting distance of their homes. This is not always possible, however, and at times it may be necessary for students to live away from home in order to obtain satisfactory and desirable co-operative work assignments.

### *Types of Co-operative Work*

Insofar as possible students are placed at co-operative work in that general field for which they express preference, provided that aptitude, physical ability, temperament and other personal qualities appear to fit them for this field. Usually students are placed first in the lower ranks of an organization where they may learn the fundamental requirements of the business.

For example, a student interested in manufacturing might be started as an operative on some machine in the plant. As his progress and other conditions warranted he would be transferred to other types of work such as shipping, inspecting, cost finding, adjusting complaints, or bookkeeping, and so on, so that in the course of his four years of co-operative training he would have the opportunity to acquire a substantial background in at least some of the functions of factory administration. This progressive type of training is more readily obtained in the employ of one company. A change of company each year provides more a change of environment than a progression of experiences.

Engineering companies, department stores, chain stores, wholesale houses, banks, manufacturing companies, public utilities, and many other types of enterprises are employing Northeastern students. In some cases definite training schedules have been established so as to permit the student one full year in each of several important departments.

### *Typical Co-operative Training Schedule*

This schedule is arranged with the basic idea of giving the student a comprehensive training through the several different departments, but must of necessity be varied in accordance with the needs of those departments.

#### PEPPERELL MANUFACTURING COMPANY

Sophomore or middler year	Stock Records	20 weeks
Middler or junior year and summer period preceding	Production Analysis	26 weeks
Senior year and summer period preceding	Inventory Control	26 weeks



## General Information

### Tuition

The tuition for all curricula in the College of Business Administration is \$250 per year. Certain fees are also required as specified in the following paragraphs. A complete statement of tuition and fee payments is given below.

### General Library and Materials Fee

All students are charged a general library and materials fee of twelve dollars (\$12) each year. This fee is payable at the time of registration and is included in the schedule of payments below.

### Student Activities Fee

Each student in the Day Division is charged a student activities fee of fifteen dollars (\$15). This fee is payable at the time of registration and is included in the schedule of payments below. This fee supports in part certain student activities, and includes membership in the *Northeastern University Athletic Association*, and subscription to *The Northeastern News*, the college paper.

The services of a physician are also available for all students under this fee. Minor ailments are treated by the college health officers without additional charge. Should the student show signs of more serious illness, he is immediately advised to consult a specialist or return to his home, where he can get further treatment.

### Schedule of Payments for Freshmen

<i>Date Due</i>	<i>Tuition and Fees</i>
September 7, 1939	\$152.00
February 5, 1940	125.00

### Schedule of Payments for Upperclassmen

<i>Division A</i>	
September 11, 1939	*152.00
January 29, 1940	125.00
<i>Division B</i>	
November 20, 1939	*152.00
April 8, 1940	125.00

There will be a \$2.00 deferred payment fee added to all bills which are not paid by the Saturday following the date on which payments fall due. When further extensions of time are given on payments which have been previously deferred, an additional \$2.00 fee will be charged for each extension.

\* This payment is \$127.00 instead of \$152.00 for all upperclassmen enrolled in the College of Business Administration prior to September 1, 1938.



Failure to make the required payments on time, or to arrange for such payments, is considered sufficient cause to bar the student from classes or suspend him from co-operative work until the matter has been adjusted with the Director of School Administration.

### *Graduation Fee*

A fee of ten dollars (\$10) covering graduation is required by the University of all candidates for a degree. This fee must be paid during the seventh week of the second semester of the student's senior year.

### *Payments*

All payments should be made at the treasurer's office. Checks should be made payable to Northeastern University.

### *Refunds*

The University assumes the obligation of carrying the student throughout the year. Instruction and accommodations are provided on a yearly basis; therefore, no refunds are granted except when students are compelled to withdraw on account of personal illness.

### *Expenses*

The following tables, compiled from expense returns submitted by the student body, give an idea of freshman expenditures under ordinary conditions.

#### *Estimated College Expenses for a Freshman*

Application Fee.....	\$5.
Tuition.....	250.
General Library and Materials Fee.....	12.
Student Activities Fee.....	15.
Books and Supplies.....	35.
	<hr/>
	\$317.

#### *Estimated Living Expenses Per Week for a Freshman Residing Away from Home*

Room Rent.....	\$3.75
Board.....	7.00
Laundry.....	1.00
Incidentals.....	2.00
	<hr/>
	\$13.75

These figures are approximate and may not exactly fit the case of any one student; but they will be found to represent fairly well the cost to a freshman who lives comfortably but without extravagance.

### *Text Books and Supplies*

The Northeastern University Bookstore is a department of the University and is operated for the convenience of the student body. All books and supplies which are required by the students for their work in the University may be purchased at the Bookstore. In addition, the Bookstore also carries a large number of general supplies. The store is located in Room 41, West Building.

### *Part Time Work*

Students who find it necessary to accept part-time jobs, while attending college, may through the Director of Co-operative Work obtain spare-time work doing odd jobs.

No student is justified in assuming that the University will take care of his expenses or guarantee to supply him with work sufficient to meet all his needs.

A student should have available a reserve fund adequate to provide for immediate needs and unexpected contingencies. This should ordinarily amount to at least the first year's tuition plus the student activity and other fees, room rent, and board for several weeks, or a total of about \$500.

### *Examinations*

Examinations covering the work of the term are usually held at the close of each term. Exceptions may be made in certain courses, where, in the opinion of the instructor, examinations are not necessary.

Condition examinations will be given in all subjects during the week of July 8, 1940 for Division A students, and the week of September 2, 1940 for Division B students. Condition examinations are not given for laboratory courses.

Special examinations may be arranged for only by vote of the Administrative Committee and for all such examinations the University requires the payment of a special fee of five dollars (\$5).

### *Grades*

A student's grade is officially recorded by letters, as follows:

- A superior attainment
- B above average attainment
- C average attainment
- D lowest passing grade, poor attainment (the faculty will accept only a limited amount of grade D work towards the Bachelor's degree)
- F failure, removable by condition examination
- FF complete failure; course must be repeated in class
- I Incomplete, used for intermediate grades only and signifies that the student has not had time to make up work lost through excusable enforced absence from class
- L used in all cases of the removal of a failure by condition examination or by attendance at summer term

A student who does not remove a condition before that course is again scheduled, a year later, must repeat the course. A condition in more than one subject involves the loss of the privilege of being a candidate for graduation with the student's class, and may involve the loss of assignment to co-operative work.

The responsibility for the removal of a condition rests with the student, who is required to ascertain when and how the condition can be removed.

### *Dean's List*

A Dean's List, issued at the end of each semester, contains the names of upperclass students who have an honor grade average in all subjects during the preceding period. Freshmen who achieve high scholastic standing are included on a Freshman Honor List, which is published at the end of each grading period. No student under disciplinary restrictions is eligible for either of the honor lists.

### *Report Cards*

Freshman reports are issued at the end of each grading period; upperclass reports, at the end of each semester. In addition, a special report on review subjects pursued during the summer term will be issued immediately at its close. Questions relative to grades are to be discussed with the student's faculty adviser.

Students are constantly encouraged to maintain a grade of work which is of acceptable quality. Parents and students are always welcomed by the Dean of Students, the Director of School Administration, and advisers for conference upon such matters.

Parents or guardians will be notified whenever students are advised or required to withdraw from the University.

### *Conduct*

It is assumed that students come to the University for a serious purpose, and that they will cheerfully conform to such regulations as may from time to time be made. In case of injury to any building, or to any of the furniture, apparatus, or other property of the University, the damage will be charged to the student or students known to be immediately concerned; but if the persons who caused the damage are unknown, the cost for repairs may be assessed equally upon all the students of the University.

Students are expected to observe the accepted rules of decorum, to obey the regulations of the University, and to pay due respect to its officers. Conduct inconsistent with the general good order of the University, or persistent neglect of work, if repeated after admonition, may be followed by dismissal, or, if the offense be a less serious one, the student may be placed upon probation. The student so placed upon probation may be dismissed if guilty of any further offense.

It is desired to administer the discipline of the University so as to maintain a high standard of integrity and a scrupulous regard for truth. The attempt of any student to present as his own any work which he has not performed, or to pass any examination by improper means, is regarded as a most serious offense, and renders the offender liable to immediate expulsion. The aiding and abetting of a student in any dishonesty is also held to be a grave breach of discipline.

### *Scholastic Year for Seniors*

Seniors of either division, who are candidates for a degree in the current year, must have completed all academic work, class assignments, theses, regular and special examinations, before twelve o'clock noon of the Saturday next following the close of recitations for seniors.

### *Attendance*

Students are expected to attend all exercises in the subjects they are studying unless excused by the Director of School Administration. Exercises are held, and students are expected to devote themselves to the work of the University, between 9:00 A.M. and 5:00 P.M. except for a lunch period, on every week day except Saturday. Saturday classes are held only between 9:00 A.M. and 1:00 P.M.

No "cuts" are allowed. A careful record of each student's attendance upon class exercises is kept. Absence from regularly scheduled exercises in any subject will seriously affect the standing of the student. It may cause the removal of the subject or subjects from his schedule. If he presents a reasonable excuse for the absence, however, he may be allowed to make up the time lost and be given credit for the work; but he must complete the work at such time and in such manner as his instructor in the course may designate.

Laboratory work can be made up only when it is possible to do so during hours of regularly scheduled instruction.

Absences from exercises immediately preceding or following a recess are especially serious and entail severe penalties.

Attendance at all mass meetings of the student body is compulsory. Exceptions to this rule are made only when the student has received permission from the Director of Student Activities previous to the meeting from which he desires to be absent.

### *Housing Regulations*

The University endeavors to exercise due consideration and care for the student's welfare while he is in residence. This necessitates the adoption of the rules and regulations presented herewith.

1. Assignments will be made when the student registers.
2. Students may inspect rooms before accepting an assignment; after reaching a decision students must notify the office of the Director of School Administration, 254W.
3. Students who accept room assignments must retain them for the period of their residence, unless given permission by the Director of School Administration to change.
4. Students are not permitted to live in unsupervised quarters. Under no conditions are groups of students permitted to lease apartments without prior approval of the Director of School Administration and the Dean of the Day Division.
5. Students are not permitted to engage rooms without the prior approval of the University. Those violating this rule will be required to give up such rooms immediately and will be assigned by the University to approved quarters.
6. Violation of any of the above rules is considered a breach of discipline and will be dealt with accordingly.



### *Residence*

It has been found to be much more satisfactory for the student to live within easy access of Boston, especially during periods in college, than to live out twenty-five or thirty miles. The saving of time and effort more than offsets any increased expense. Residence in Boston is advisable, as it gives the student opportunity to use the college facilities outside of class hours, and to confer more easily with his instructors about his college work.

### *Dormitories*

At present the University does not maintain dormitories. Provision, however, is made for students to secure rooms in the vicinity. Many freshmen prefer to take room and board at the fraternity houses, which are all supervised by the University through faculty advisers. For information relative to such housing write the Director of Admissions.

Rooms in the dormitory of the Huntington Avenue Branch of the Boston Y.M.C.A. may be secured only through the Housing Department of the Y.M.C.A. The applicant must present himself in person to a representative of the Department before assignment will be made.

Applicants desiring to room in the Association dormitory are advised to write the Housing Department of the Huntington Avenue Branch, 316 Huntington Avenue, Boston, Massachusetts.

## *Buildings and Equipment*

### *Boston — A Great Educational Center*

THE fact that Northeastern University is in Boston broadens the educational and cultural opportunities of its students. Few other cities in the country are so rich in the finest elements of American life. Many of its historic buildings, such as the Old State House, Faneuil Hall, and the Old North Church, have become museums for the preservation of old documents, paintings, and other collections representative of early Colonial life. The Boston Public Library and the Museum of Fine Arts, both within a few blocks of the University Buildings, are widely noted for their treasures of literature and art. Even nearer to the University is Symphony Hall, home of the world-famous Boston Symphony Orchestra. And the many churches within Greater Boston not only afford the opportunity of hearing distinguished preachers but through their student clubs and young people's societies make possible for students a fine type of social and intellectual life.

### *Location*

The Day Division of the University is at present housed in three buildings: the West Building, the East Building, and the South Building.

These buildings, located on Huntington Avenue, just beyond Massachusetts Avenue, are within easy access of the various railroad stations and the business and residential sections.

A map indicating the location of University buildings is shown on page 32.

### *Transportation*

The chief railroad centers of Boston are the North and South Stations. From the North Station board a car going to Park Street, at which junction transfer to any Huntington Avenue car. At South Station board a Cambridge subway train for Park Street Under. There change to a Huntington Avenue car and alight at the West Building of Northeastern University.

### *East Building*

The East Building of the University is the educational wing of the Boston Y. M. C. A. In it are areas devoted to classrooms, accounting and drawing rooms, the Business Administration Laboratory and several departmental offices. Jacob P. Bates Hall is also in this building. This Hall has a seating capacity of 400,

has a large stage, and is suitable for entertainments of various kinds. It is an important center for various student activities. Here the band and the orchestra have their rehearsals, the glee club gives its entertainments and some of the dramatic work is presented. Numerous student socials and small group dinners frequently are held here.

### *Natatorium*

The Natatorium is one of the finest of its kind and is located in the East Building between the Assembly Hall and Gymnasium, and is easily accessible from the locker rooms of the latter. The swimming pool, 75 feet long by 25 feet wide, is supplied with filtered water and is heated to the proper temperature by an elaborate system of pipes.

### *Gymnasium*

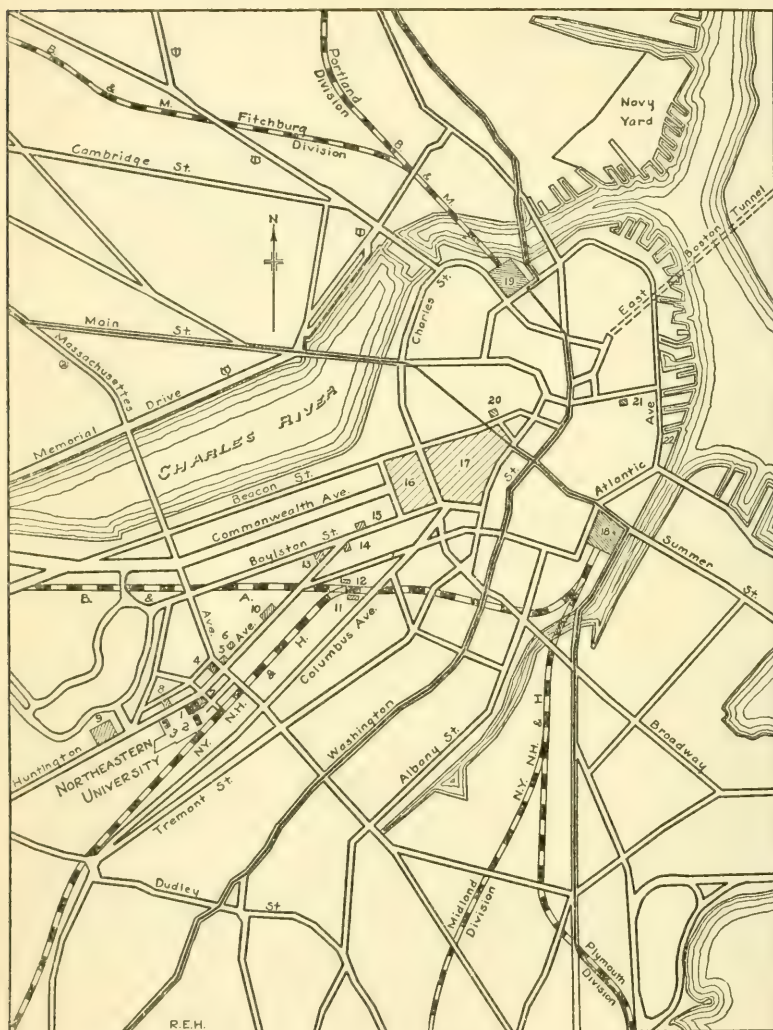
This structure, the funds for which were provided by the relatives of the late Samuel Johnson, is known as the Samuel Johnson Memorial Gymnasium. The gymnasium provides the following facilities: three gymnasiums, a twelve-lap running track, two large exercise rooms, boxing and wrestling rooms, handball and squash courts, bowling alleys, showers, steam baths, massage rooms, and electric cabinet baths.

### *Lecture Assembly Halls*

Through special arrangement, Jordan Hall, Symphony Hall, and the Boston Opera House are made available for assembly purposes. These halls provide ample space for student activity assemblies and for special lectures by noted men. All the students in college at any period assemble for one hour each week throughout the college year. More than half of the assembly sessions are devoted to interests and activities developed by the students themselves. The other assembly periods are devoted to special lectures, sometimes under the direction of the student body and sometimes under the direction of the faculty. The special lectures are devoted to those elements of life which count most in the development of a man's viewpoint and his character.

### *South Building*

The South Building is located directly behind the East Building. In it are the Biological Laboratory, the Industrial Engineering and Chemical Engineering laboratories, the Hydraulics and Sanitary Engineering laboratory, the Electrical Measurements and Dynamo laboratories, department offices, classrooms, conference rooms, and a large drafting room.



MAP SHOWING NORTHEASTERN UNIVERSITY AND VICINITY

*Key to Map*  
*Northeastern University and Vicinity*

1. EAST BUILDING
2. SOUTH BUILDING
3. WEST BUILDING
4. SYMPHONY HALL
5. HORTICULTURAL HALL
6. CHRISTIAN SCIENCE CHURCH
7. NEW ENGLAND CONSERVATORY OF MUSIC
8. BOSTON OPERA HOUSE
9. BOSTON MUSEUM OF FINE ARTS
10. MECHANICS EXHIBITION HALL
11. BACK BAY STATION
12. TRINITY PLACE
13. BOSTON PUBLIC LIBRARY
14. TRINITY CHURCH
15. MUSEUM OF NATURAL HISTORY
16. BOSTON PUBLIC GARDEN
17. BOSTON COMMON
18. SOUTH STATION
19. NORTH STATION
20. STATE HOUSE
21. U. S. CUSTOMS HOUSE
22. ROWES WHARF



### *West Building*

This is the first building of the new Northeastern plant. It comprises a basement, four stories, and a penthouse and provides 100,000 sq. ft. of floor space. The basement is occupied by the Mechanical Engineering Laboratory, machine shop, bookstore, lunchroom, lockers, and a few special classrooms. On the first floor are located the main administrative offices of the University, including the President's office, and classrooms. The General Physics Laboratory and the Advanced Physics Laboratory, classrooms, offices of the Dean of Students, Director of School Administration, and Director of Co-operative Work, and a large, modern, completely equipped lecture hall, seating over 300, are found on the second floor. The third floor is devoted almost entirely to classrooms, a large lecture hall, and combination drawing and lecture rooms. On this same floor the Northeastern Student Union operates two reading rooms, and a lounging room. The fourth floor is occupied by the Organic Chemistry Laboratory, the Inorganic Chemistry and Qualitative Analysis Laboratory, the Quantitative Analysis and Physical Chemistry Laboratory, Research Laboratories and a large Chemistry lecture hall. Specially equipped drawing rooms and an art room are also on the fourth floor. The penthouse contains a radio laboratory, an astronomy laboratory, and a lounge for faculty and alumni.

### *Equipment for Physical Training*

Northeastern has exceptional facilities for all-round physical training. The gymnasium is one of the most complete in New England. Adjoining the building is a large field equipped for athletics. Here are two tennis courts, outdoor gymnasium, rifle range, baseball cage, jumping pits and a track with a 100-yard straightaway.

Northeastern University owns and operates a large athletic field a short distance from the University. This field, known as the Huntington Field, provides ample facilities for track, baseball, football, and other outdoor sports. A bus service maintained between the field and the University makes it possible for students to get back and forth with a minimum loss of time. A new and commodious field house has recently been erected at the field as well as ten sections of stadium seats capable of seating 2,000 spectators.

### *Design and Drafting Rooms*

The University possesses large, light, and well-equipped drawing rooms for the carrying on of the designing and drafting which forms so important a part of engineering work. These rooms are

supplied with lockers containing the drawing supplies, files containing blue prints, and photographs of machines and structures that represent the best practice. Drafting room blackboards are equipped with traveling straight edge devices which facilitate speed and accuracy in blackboard demonstrations.

### *Libraries*

The library service of Northeastern University comprises the following units:

1. The Main Library, located on the second floor of the East Building, includes four reading rooms in which are available all of the general reference books, many of the professional and scientific volumes, and all of the periodicals (approximately 100) to which the University subscribes. This library is under the direction of a librarian and two assistants, all of whom have had special training for the work. Main library hours are as follows:

9:00 A.M. to 10:00 P.M. Daily  
2:00 P.M. to 9:00 P.M. Sundays  
12:00 M. to 9:00 P.M. Holidays

2. The Branch Library, located on the same floor as the Main Library, houses most of the books on management. The Branch Library is open from 8:45 A.M. to 5:15 P.M. daily except Sundays. Students have access directly to the shelves which contain books on reserve for particular courses as well as general reference works.

3. A general reading room and library is maintained by the Northeastern Student Union in Room 356, West Building. The books located here are chiefly non-technical works dealing with contemporary affairs, religious problems, international relations, travel, etc. among which students may browse during periods of relaxation. A few of the literary and religious periodicals are also available in this room.

4. Special departmental libraries are maintained by the various instructional departments in the College of Business Administration. These are kept chiefly in the offices of instructors where the books may be assigned to individual students or to groups for special reports or thesis work. Such books are catalogued in the Main Library but are permanently assigned to the instructional departments concerned.

### *Boston Public Library*

All members of the University, whether resident or non-resident students, have the privilege of taking books from the Boston Public Library and of using the library for general reference and

study. Inasmuch as this is one of the best in the country, it presents unusual opportunities to the students. Within a ten minutes' walk from the University, it enables students to have unlimited reference at any time to books and periodicals bearing upon their studies.

### *Equipment*

#### *Visual Education Equipment*

Classroom instruction is made more effective by the use of motion pictures and lantern slides. For this purpose there are available projectors for 16 mm. and 35 mm. films. Complete sound motion picture apparatus is also available. New and powerful Delineascopes project the lantern slides. Stationary as well as portable day light screens enable students to take notes while viewing the pictures.

#### *Business Laboratory*

Students have available for laboratory work in accounting and statistical methods all of the commonly used office machines. These are available in a special room together with necessary library services, including Moody's Manuals, Poor's Manuals, and various charts and maps.

The laboratory is in charge of a graduate assistant whose work is to maintain the equipment in excellent condition and to give instruction in the use of the various office machines.

Principal pieces of equipment in the laboratory include duplicators, typewriters, hand and electric calculators, and both hand and electric adding machines.

## *Student Activities*

NORTHEASTERN University regards student activities as an integral part of its educational program. One of the main departments of the University is charged with the responsibility of co-ordinating the various types of activities and of administering the social, musical, literary, and athletic organizations in such a way as to enable each to contribute in a wholesome, worth while manner to student life at Northeastern. Every student is encouraged to participate in such activities as may appeal to him, although a standard of scholarship which is incompatible with *excessive* devotion to such pursuits is required of all students.

Members of the faculty also are interested in the informal aspects of the college program. Teaching loads are kept sufficiently low so that the instructional staff may have ample opportunity to mingle with students outside of the classroom in social activities and on the athletic field. In fact some member of the faculty is appointed to serve as adviser for each student activity. His function is not to dictate how the organization shall be run, but to encourage the students in their extra-curricula endeavors and to give them the benefit of his mature point of view in solving the problems that inevitably arise.

One of the outstanding contributions of the co-operative plan in the field of higher education has been its capacity to develop in students those powers of social understanding that are so essential to success in professional life. At Northeastern the program of student activities is made to contribute to this end in a very real way. It is a conscious aim of the student activities advisers to develop among their advisees those qualities of personality and character which will enhance their usefulness as future professional men and citizens. Students have splendid opportunities to develop administrative and executive ability as leaders of undergraduate organizations. No academic credit is awarded for any student activity. This has been no deterrent, however, to student participation in extra-curricula activities for a recent survey of the undergraduate body showed that over 90% of the enrollment were engaged in one or more forms of student activity.

### *Athletic Association*

All students in the Day Division are members of the Northeastern University Athletic Association. Policies of the association are passed upon by a Faculty Committee on Student Activities appointed by the vice-president in charge of the Day Division. This committee decides what students are eligible to



participate in athletics, what the various sports schedules shall be, and what students may be excused from classes to represent the University on athletic trips.

The actual administration of the athletic program is in the hands of a second committee, known as the General Athletic Committee, which consists of the Director of Student Activities, the captains and managers of all varsity teams, and the coaches as *ex officio* members.

The University maintains both varsity and freshman teams in basketball, baseball, football, hockey, and track. Intercollegiate games and meets are arranged with the leading colleges in the East. In addition to intercollegiate athletics the athletic association conducts an intramural program in various sports.

### *Tennis Club*

The Northeastern University Tennis Club is open to all undergraduates. The Department of Student Activities appoints a faculty adviser who assists the members in conducting an intramural tennis tournament. Excellent facilities for tennis are afforded on the courts behind the East Building of the University. In the early spring members of the Tennis Club have access to the gymnasium for indoor practice.

### *Mass Meeting*

The hour from 12:00 to 1:00 on Wednesdays throughout the year is set aside for mass meetings. Attendance is compulsory. Arrangements are made to bring before the student body some of the ablest and foremost thinkers of the day. A list of speakers for the year will be found on page 12 of this catalogue. When the mass meeting hour is not occupied by a University lecturer, class meetings, concerts, or athletic rallies are held instead. Such gatherings are under the direction of the Department of Student Activities.

### *"The News"*

A college newspaper called the "Northeastern News" is published each week throughout the college year by a staff selected from the student body. The copy is prepared, edited, and published by the students themselves with the counsel of a faculty adviser. Opportunity is afforded for the students to express their opinions on subjects relating to study, co-operative work, social events, or topics of the day. Positions on the News staff and promotions are attained by competitive work. The paper is in part supported by advertising, both national and local, and in



part by a portion of the student activities fee. The Northeastern News is a member of the Eastern Intercollegiate Newspaper Association, and sends one of its editors to the annual convention of this association each year. Copies of the News are mailed to upperclassmen when they are at co-operative work, and to freshmen after the close of their college year.

### *"The Cauldron"*

The senior class publishes annually a college year book, "The Cauldron." It is ready for distribution in the latter part of the second semester and contains a complete review of the college year with class histories, pictures of all seniors, of the faculty, and of undergraduate groups, as well as a miscellany of snapshots and drawings contributed by students.

### *The Handbook*

Each fall the Northeastern Student Union issues a conveniently sized student Handbook which is sold to students at a nominal price. The book contains information about the various college clubs, athletic programs, fraternities, rules governing freshmen, lockers, publications, and so on. The Handbook also includes a diary for the college year in which it is issued.

### *Student Council*

Student government at Northeastern University is vested in the Student Council, composed of elected representatives from the various classes. The Council is the authority on all matters relating to student policies not definitely connected with classroom procedure. It has jurisdiction, subject to faculty approval, over all such matters as customs, privileges, campus regulations, etc. and meets regularly to consider and act upon issues referred to it for decision. The Dean of Students serves as faculty adviser to the Student Council.

### *The Sigma Society*

Sigma Delta Epsilon, or the Sigma Society, is the Business Administration honorary society. It elects its members from among outstanding students in the field of business administration. Election to the honorary fraternity is founded primarily upon scholarship, but before a man is privileged to wear the honorary society insignia he must display an integrity of character and an interest in the extra-curricular life of the University as well as an acceptable personality. The Society has a list of members consisting of the outstanding men in the College of Business Administration. Election to the honorary society is the highest honor that can be conferred upon an undergraduate.

### *Fraternities*

There are at present ten local Greek letter fraternities chartered by Northeastern University. Each fraternity is provided with a faculty adviser who is responsible for the proper administration of the fraternity house under the rules and regulations established by the faculty. The list of fraternities in the order of their establishment is as follows:

- |                       |                     |
|-----------------------|---------------------|
| 1. Alpha Kappa Sigma  | 6. Phi Beta Alpha   |
| 2. Beta Gamma Epsilon | 7. Phi Gamma Pi     |
| 3. Eta Tau Nu         | 8. Sigma Phi Alpha  |
| 4. Nu Epsilon Zeta    | 9. Kappa Zeta Phi   |
| 5. Sigma Kappa Psi    | 10. Gamma Phi Kappa |

Elected representatives from each fraternity make up an Inter-Fraternity Council, a body which has preliminary jurisdiction over fraternity regulations. Its rulings are subject to the approval of the Faculty Committee on Student Activities.

### *Professional Societies and Clubs*

To assist in the promotion of social, cultural, and intellectual advancement through informal channels, a number of professional societies and clubs are sponsored. Among others the following organizations of this type are active in the College of Business Administration:

#### *Accounting — Law Club*

All students interested in accounting and law are invited to join this stimulating club. Problems and cases involving the interrelations of accounting and law are presented and discussed at club meetings. Although upperclassmen usually present problems arising out of thesis or co-operative work, speakers from the professional world come to the meetings to present papers and lead the student discussion.

#### *Banking Club*

The purpose of this organization is to increase among its members the knowledge of the theory and practice of banking. Any student of Northeastern University, while enrolled in any of the banking courses of the College of Business Administration, is eligible to active membership in this club. Meetings are held each ten week period at which banking executives from Greater Boston are invited to discuss current issues in the field of banking.

### *International Relations Club*

The International Relations Club was founded in 1932 for the purpose of studying and discussing those national and international events and issues which are daily transpiring within and without our borders and which vitally concern our American life and institutions.

It is the intention of the club to deal with all questions in an impartial and broadminded manner, and to take an intelligent and effective part in promoting international understanding and harmony. The club maintains contacts with similar organizations in other colleges.

Membership is not open to freshmen, and only to those upper-classmen who maintain good scholarship.

### *Rifle Club*

Organized a number of years ago, the Rifle Club was so successful that in 1933 riflery was recognized as a minor sport. Members of the club are given instruction in the art of rifle shooting and those students who excel in intra-mural competition are selected for the team representing the University in intercollegiate contests. Practice sessions are held twice a week in the University rifle range. Membership is open to all students.

### *The Society for the Advancement of Management*

The Society for the Advancement of Management is a national professional society devoted to the development of the science of management in all of its branches. The student branch at Northeastern, to which all upperclassmen in good standing are eligible for membership, conducts a number of meetings a year. At these meetings experts in the field of management present current and timely discussions of management topics.

### *Musical Clubs*

The Department of Student Activities sponsors the following musical clubs: an orchestra, a band, a glee club, a banjo club, and a dance orchestra, for which all students with musical ability are eligible. Membership in the various musical clubs is attained by competitive effort.

Each organization has a faculty adviser and each elects a representative to the Musical Clubs Council. The purpose of this council is to co-ordinate the various musical activities of the Day Division. At the annual Musical Clubs Banquet, held early in the spring, charms are awarded to the leaders and managers of the several clubs and to members who have played over a period of three full years.

The various musical clubs, in conjunction with the Dramatic Club, combine in an annual mid-winter entertainment and participate in occasional outside public engagements throughout the college year.

### *Class Organization and Activity*

Each of the Classes in the Day Division elects its officers and carries on activities as a class. Dances are sponsored by the classes at regular periods throughout the year. One of the high lights of the social program is the Junior Promenade, held each spring at one of the Boston hotels.

Seniors plan a whole week of activities just prior to Commencement in June.

Freshmen are required to wear the red and black necktie distributed through the Department of Student Activities in order that they may be readily distinguishable to each other and to upperclassmen.

### *The Northeastern Student Union*

The purpose of the Northeastern Student Union is to carry out the work of a Christian Association within the University. It endeavors to deepen the spiritual lives of Northeastern men through the building of Christian character, to create and promote a strong and effective Northeastern University spirit in and through a unified student body, to promote sociability, and to emphasize certain ethical, social, civic, intellectual, economic, physical, vocational, and avocational values.

All students are encouraged to participate in the activities of the Union, no matter what their religious faith, as the work of the Union is entirely non-sectarian. A good moral character is the only requirement for eligibility to membership. It is hoped that as many students as can will participate in this ideal extra curricula work.

The Union conducts a weekly Chapel Service in the little chapel in the West Building, to which all Faculty members and students are invited. The service, which is non-sectarian and voluntary, is held on Thursday mornings from 8:40 to 8:55 o'clock. Many eminent preachers of Greater Boston are engaged to deliver brief addresses.

### *Alumni Association*

The alumni of the Day Division are organized to promote the welfare of Northeastern University, to establish a mutually beneficial relationship between the University and its alumni, and to perpetuate the spirit of fellowship among members of the Alumni Association.

Among the events sponsored by the Alumni Association are the annual meeting and reunion; the annual alumni-varsity basketball game; and class reunions. The Association also awards a track trophy each year and contributes to the Alumni Student Loan Fund.

The work of the General Alumni Association is supplemented by the activities of regional alumni clubs. The local clubs meet periodically in their respective centers to discuss matters pertaining to the University and its alumni. Meetings are also held in conjunction with the visits of Northeastern's athletic teams to the various club centers.



## *Officers of the Alumni Association*

### *President*

HENRY C. JONES, JR.

### *Vice-President*

LINDSAY ELLMS

### *Secretary*

GEORGE A. MALLION

### *Treasurer*

WILLIS P. BURBANK

### *Executive Committee*

CRAWFORD A. GLEN

MAX P. STANDKE

JOHN W. GREENLEAF

RAYMON D. TELLIER

RICHARD MARSHALL

EARL H. THOMSON

### *Faculty Representative*

G. RAYMOND FENNELL

### *Alumni Executive Secretary*

RUDOLF O. OBERG

### *Alumni Council Representatives*

1913-1920 ERVING H. CLOUGH

1929—S. WHITNEY BRADLEY

JOHN S. LEIGHTON

ELIOT W. HOWARD

JOHN R. McLEISH

1930—DEXTER W. LOVELL

1921—MARTIN BROWN

ALEXANDER G. MACGREGOR

1922—RICHARD B. BROWN

1931—HARRY A. GILL

1923—JOSEPH E. JOHNSON

1932—SIDNEY A. STANDING

1924—FARNHAM W. SMITH

1934—J. LLOYD HAYDEN

1925—JAMES W. DANIELS

1935—HARTWELL G. HOWE

1926—EARL L. MOULTON

1936—FREDERIC S. BACON, JR.

1927—WILLIAM J. URQUHART

1937—JOHN F. SHEA

1928—WILLIAM E. R. SULLIVAN

1938—CHESLEY F. GARLAND

## Admission Requirements

**A**PPPLICANTS for admission to the freshman class without restrictions must qualify by *one* of the following methods:

1. Graduation from an approved course of study in an accredited secondary school, including prescribed subjects listed below.

2. Completion of fifteen acceptable secondary school units with a degree of proficiency satisfactory to the Department of Admissions.

3. Examinations.

(Certificate of entrance examinations passed for admission to recognized colleges and technical schools may be accepted.)

### Prescribed Subjects for Admission

#### *College of Business Administration*

Mathematics	1 unit
Natural Science	1 unit
History and/or Social Studies	3 units
English	3 units
*Electives	7 units
Total	15 units

A unit is a credit given to an acceptable secondary school course which meets at least four times a week for periods of not less than forty minutes each throughout the school year.

Entrance examinations are not required of students whose transcripts of record are acceptable, but the Committee on Admission reserves the right to require a candidate to present himself for examination in any subjects that it may deem necessary because of some weakness in his secondary school record.

### Other Requirements

These formal requirements are necessary and desirable in that they tend to provide all entering students with a common ground upon which the first year of the college curriculum can be based. But academic credits alone are not an adequate indication of a student's ability to profit by a college education. Consequently the Department of Admissions takes into consideration, along with the formal requirements stated above, many other factors regarding candidates for the freshman class. A student's interests and aptitudes in so far as they can be determined, his capacity for

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\*Not less than four of the "electives" must be in one or more of the following academic branches: Languages, Natural Science, Mathematics, Social Sciences, History.

hard work, his attitude toward his classmates and teachers in high school, his physical stamina, and most important of all — his character, all these considerations are carefully weighed. In this way the University seeks to select for its student body those who not only meet the academic admission requirements but who also give promise of acquitting themselves creditably in the rigorous program of training afforded by the co-operative plan and of later becoming useful members of society.

### *Personal Interview*

Candidates for admission should communicate with the Director of Admissions, who will advise them frankly on the basis of past experience. A personal interview is always preferred to correspondence, and parents are urged to accompany their sons whenever this is possible. Effective guidance depends in large measure upon a complete knowledge of a candidate's background and problems. Parents invariably are able to contribute much information that aids the admissions officer in arriving at a decision. In general, a student is likely to be more successful in his college work if he does not enroll under the age of seventeen.

### *Application for Admission*

Each applicant for admission is required to fill out an application blank whereon he states his previous education, as well as the names of persons to whom reference may be made in regard to his character and previous training.

An application fee of five dollars (\$5) is required when the application is filed. This fee is non-returnable.

The last page of this catalog is in the form of an application blank. It should be filled out in ink and forwarded with the required five dollar fee to Director of Admissions, Northeastern University, Boston, Mass. Checks should be made out to Northeastern University.

Candidates are urged to visit the Office of Admissions for personal interview if it is possible for them to do so before submitting their applications. Office hours of the Department are from 9:00 A.M. to 4:00 P.M. daily; Saturdays to 12:00 M. The Director of Admissions will interview applicants on Wednesday evenings but by appointment only.

Upon receipt of the application, properly filled out, the College at once looks up the applicant's references and secondary school records. When replies have been received to the various inquiries, the applicant is informed as to his eligibility for admission.

Applications should be filed not later than May first, thus allowing ample time for the investigation of the applicant's secondary school records before he enrolls in the College.

The University reserves the right to place any entering student upon a period of trial. Whether he shall be removed from trial at the end of this time or requested to withdraw will be determined by the character of the work he has accomplished and his conduct during this trial period.

### *Registration*

Eligibility for admission does not constitute registration. Freshmen register at the University on September 7, 1939. No student is considered to have met the requirements for admission until he has successfully passed the required physical examination.

### *Advanced Standing*

Students transferring from approved colleges will be admitted to advanced standing provided their records warrant it. Whenever a student enters with advanced standing and later proves to have had inadequate preparation in any of his prerequisite subjects, the Faculty reserves the right to require the student to make up such deficiencies.

Applicants seeking advanced standing should arrange to have transcripts of their previous college records forwarded with their initial inquiry.

### *Entrance Condition Examinations in Boston*

Students who are deficient in required units for admission may remove these deficiencies by examination. Such examinations are held at the University unless special arrangements are made with the Department of Admissions to administer them elsewhere.

Students are advised to take such examinations on the earliest possible date in order that any deficiencies which they fail to clear may be made up in time to permit registration with the desired class and division.

The time of examinations is as follows:

10:00 A.M. to 12:00 M.  
1:00 P.M. to 3:00 P.M.

During the current year examinations will be given on the following days: June 7, 1939; August 30, 1939. All other examinations will be given by special assignment.

### *Freshman Orientation Period*

In order that freshmen may be ready to pursue their academic work with greater composure and be somewhat acclimated



preceding the beginning of scholastic work, three or four days prior to the first term are devoted to a freshman orientation period. During this time freshmen are advised as to choice of program, and assisted in every way possible in order that they may be prepared to begin serious study and work on the first day of the college term. All freshmen are required to attend all exercises at the University scheduled during the orientation period.

An optional feature of the orientation program is the freshman camp conducted under the auspices of the Student Union. The camp is planned particularly for out-of-town students, although commuters are welcomed. It aims at providing a stimulating and wholesome environment under vacation conditions in which the new men may become acquainted with one another and with members of the faculty. The camp site on Lake Massapoag in the northern part of Massachusetts is admirably equipped for this purpose, having ample facilities for baseball, basketball, tennis, boating, and swimming. The cost of the two days at camp is nominal and most freshmen avail themselves of this opportunity for recreation prior to the beginning of the college year.

### *Physical Examination*

All freshmen receive a thorough physical examination at the University during the orientation period. All students are expected to report promptly at the appointed time for examination. Those who fail to appear at the appointed time will be charged a special examination fee of two dollars (\$2).

### *Freshman Counsellors*

At the time of his matriculation each freshman is assigned to a personal counsellor, a member of the faculty, who serves as an interested and friendly counsellor during the perplexing period of transition from school to college. A personal record card is prepared for each student, containing certain pertinent data from his preparatory school record, the report of his physical examination at Northeastern, his scores on psychological tests, the results of placement examinations, and any special notes which may be of significance in counselling work. The aim of the freshman counselling system is primarily to assist students in making an effective start upon their programs and secondarily to acquire for the later use of guidance officers a fund of significant information relative to every freshman. Counselling is under the direction of a Dean of Students, assisted by a clinical psychologist, who handles the diagnosis and remedial treatment of problem cases.



### *Individual Attention to Freshmen*

Not only is attention given to the problems of the student in connection with his studies, but also the service is extended to include help upon any problem in which advice is needed and desired, the aim being to guide the student to the fullest possible personal development.

The college record of each student is carefully analyzed in the light of what could reasonably be expected of him, considering his previous school record, his score on the psychological test, and the other factors in his situation. If he is not doing his best work, an investigation is made to determine and eliminate the causes. If he is doing as well as could be expected or better, he is encouraged to continue to do so. In other words, each student is held to the most effective work possible, through advice, encouragement, and assistance.

### *Outline of Courses*

The first year is a period of full time study during which the student must demonstrate his fitness for the program which he has elected. Students who are unsuccessful in the basic courses of the freshman year will not be permitted to continue with their advanced program, but will be advised to change their goal and type of training. In some instances this will mean change to another curriculum at Northeastern; in others, transfer to another institution. The freshman courses are so arranged as to permit change of objective at the end of the first year with a minimum loss of time.

Academic programs of all students in the College of Business Administration are identical for the first three years. Co-operative work begins with the second year and continues throughout the last four years of the curriculum. Specialization in Accounting, Finance, or Management occupies the fourth and fifth years.

## THE COLLEGE OF BUSINESS ADMINISTRATION

### *Aims and Methods*

FORMERLY when a student finished high school and decided to make his way in the business world he could go about it in one of two ways: (1) Obtain a position in a particular field of commerce or industry and by beginning at the bottom learn the business from the job of the office boy to that of the president, or (2) enter a liberal arts college and after four years of general study enter business just as he would have had he not attended college. It was hoped that his broad college training and collegiate contacts would push him along "through the ropes" faster than the young man who went straight into business from high school. In either event this system of apprenticeship worked out very well in training a man in business and those who had the push and ability went to the front. This continued just so long as business organization was limited to relatively small units. In the small business there was time and opportunity for employer and employee — boss and apprentice — relationships. A man could learn much from his superiors, and recognition in the way of promotion in salary or responsibility rewarded those whose ability warranted it.

### *The Problem of Today*

What of today? Can a student go "through the ropes" and progress today as his father did in his youth and early manhood? The answer is: probably not. We can see just reason for the negative answer when we consider our present business world. We are surrounded on every hand by "big business" where the employee is lost in the vast number of workers of every large organization. The old time employer who trained his own men is passing out of the business scene. This does not mean that there is any less need for training about the conduct of business. It does mean that the training has got to be done by some other person or institution especially equipped to do the job in a most thorough manner. Actually the training for business positions of real importance is more necessary today than ever before. To satisfy this very apparent need colleges of business administration have appeared and grown in size and importance within the last twenty-five years. Among institutions for the training of young men who intend to undertake business as a profession, Northeastern University offers to those properly qualified a college training in business administration, leading to the degree of Bachelor of Science in Business Administration.

### *Business Education on the College Level*

Although it is true that collegiate training for business is relatively new in the field of higher education, it is also evident that collegiate business schools are beyond the stage of early experimentation and have emerged on a level with other college courses recognized as higher education. There is a certain advantage in newness in that the mere youth of the college keeps it up-to-date in its outlook and scope of activity. In addition it is not bound by the traditional but obsolete practices sometimes found in older branches of education.

We hear a good deal today about the increasing need for specialists in business. It is asserted that modern business institutions have become so large that no one man can administer the many matters of routine involving executive judgment. The need for specialists is self-evident, but the training best suited for preparing the individual to take over specialized executive authority is not so evident. There are many schools offering a short course of training in preparation for these specialized positions. Such training cannot give a man the breadth of vision needed to go beyond minor managerial jobs demanding attention to exhausting details of daily routine.

To pass beyond this on the way to responsibility of truly executive nature a background of general business and related knowledge is essential. This background should precede the specialized study into a particular branch of business, enabling one to see the whole business and industrial picture and not merely one branch of it. Executive administration cannot be taught with any adequacy by attacking one subject, no matter how carefully planned the approach and how thorough the course of study. For instance, accounting is not the only means of arriving at a production budget based on sales estimates; it is but one of the tools. A knowledge of marketing, finance, statistics, and management technique are also needed. Vision and sound judgment can then make all of these branches of information serve to best advantage.

### *Aims of the College*

In keeping with current trends in collegiate business education the educational policy of the College is directed toward the achievement of the following purposes:

*First:* To offer that type of education for business which will enable students to select most advisedly the field of business best suited to their aptitudes. The co-operative plan is particularly effective in this respect.

*Second:* To build for breadth of perspective in preference to over-specialization with its narrowing effects; therefore, to elim-

inate haphazard selection of courses, through concentration upon balanced, carefully co-ordinated curriculums, and thus to provide an adequate background for specialization as need arises.

*Third:* To provide a thorough knowledge of fundamental economic laws and an understanding of their applications in business.

*Fourth:* To develop the habits of accurate thinking that are essential to sound judgment.

*Fifth:* To develop in all students attitudes and ideals that are ethically sound and socially desirable.

### *Methods*

In order that these aims may be realized as fully as possible, the College makes use of the problem and the case methods of instruction in addition to the lecture and recitation system. Mere textbook reading alone is almost valueless; students tend to accept without question what the textbook presents. Instead, they should learn to analyze every proposition, to challenge unsupported assertions, to think independently, and to support their thinking with logic and facts.

Hence, concrete problems and cases which executives have faced in accounting, marketing, organizing, and the like, constitute the bulk of class work. Students analyze problems, break them into their constituent parts, discover and list the factors for and against possible solutions, and work out a logical conclusion. In class they discuss their work with their instructors in the light of the latter's broader knowledge.

Such a method tends to develop an executive attitude. No lecture or mere reading of textbooks can do so. Students gain skill and facility in solving problems by actually solving many hundreds of them, thereby accumulating a ripe experience seldom open to the petty employee buried in routine and mechanical detail. What counts in business, as elsewhere, is not solely whether one possesses much knowledge, but whether through his knowledge one can logically and effectively solve the problems he confronts, or possibly prevent problems from arising. Experience in solving typical problems provides a background for anticipating and forestalling similar ones as well as for solving others that may arise.



## *Requirements for Graduation*

Students may qualify for the degree of Bachelor of Science in Business Administration in one of the following curricula: Accounting, Banking and Finance, Business Management.

Candidates for the Bachelor of Science degree must complete all of the prescribed work of the curriculum in which they seek to qualify with a degree of proficiency acceptable to the faculty. A minimum of 115 weeks of college work is needed to fulfill this requirement. Students who undertake co-operative work assignments must also meet the requirements of the Department of Co-operative Work before they become eligible for their degrees.

No student transferring from another college or university is eligible to receive the B.S. degree until he has completed at least one academic year at Northeastern immediately preceding his graduation.

### *Scholarship Requirements*

Any student who fails to show a satisfactory standard of general efficiency in his professional field may be required to demonstrate his qualifications for the degree by taking such additional work as the faculty may prescribe. If he is clearly unable to meet the accepted standard of attainment, he may be required to withdraw from the University. The degree conferred not only represents the formal completion of the subjects in the selected course of study but also indicates professional competence in the designated field of business administration.

### *Graduation with Honor*

Candidates who have achieved distinctly superior attainment in their academic work will be graduated with honor. Upon special vote of the faculty a limited number of this group may be graduated with high honor or with highest honor. Students must have been in attendance at the University at least two years before they may become eligible for graduation with honor, with high honor, or with highest honor.

### *Thesis Option*

Theses are not required of candidates for the degree of Bachelor of Science in Business Administration. Students who show special aptitude for thesis work, however, may be permitted to substitute an appropriate thesis for equivalent work in class. Such permission must be obtained by the candidate from the board of thesis advisers.



## Curriculum I Accounting

FIRST TERM			SECOND TERM		
No.	Course	Semester Hours	No.	Course	Semester Hours
<i>First Year</i>					
E 1	English I	3	E 2	English I	3
H 1	Hist. of Civilization	3	H 2	Hist. of Civilization	3
M 21	Business Mathematics	3	M 22	Business Mathematics	2
AC 1	Accounting I	3	AC 2	Accounting I	3
Ec 1	Intro. to Economics	3	Ec 2	Econ. Hist. of U. S.	3
Gv 1-A	American Govt.	3	Gv 2-A	American Govt.	3
Ps 1-A	Orientation Problems	0	PE 2	Hygiene	1
PE 3-4	Physical Training	0	PE 3-4	Physical Training	0
		18			18
<i>Second Year</i>					
E 3	English II	2	E 4	English II	2
Ps 1	Int. to Diff. Psych.	2	Ps 2	General Psychology	2
Ec 3	Economic Principles	2	Ec 4	Economic Principles	2
FI 3	Business Finance	2	FI 4	Business Finance	2
BU 1	Marketing Principles	2	BU 2	Marketing Principles	2
AC 3	Accounting II	2½	AC 4	Accounting II	2½
		12½			12½
<i>Third Year</i>					
Ec 5	Economic Problems	2	Ec 6	Economic Problems	2
Ec 7	Money and Banking	2	Ec 8	Money and Banking	2
AC 5	Cost Accounting	2½	AC 6	Cost Accounting	2½
IN 5	Industrial Mgt. I	2	IN 6	Industrial Mgt. II	2
BU 3	Marketing Problems	2	BU 4	Marketing Problems	2
	Liberal Elective	2		Liberal Elective	2
		12½			12½
<i>Fourth Year</i>					
AC 7	Advanced Cost Acctg.	1	AC 8	Advanced Cost Acctg.	1
AC 11	Advanced Acctg.	3	AC 12	Advanced Acctg.	3
E 13	Effective Speaking	1	E 14	Effective Speaking	1
Ec 9	Statistics in Business	3½	Ec 10	Statistics in Business	3½
FI 9	Credit Analysis	2	U 8	Legal Aspects I	2
	Liberal Elective	2		Liberal Elective	2
		12½			12½
<i>Fifth Year</i>					
AC 9	Auditing	3	AC 10	Income Tax	3
AC 13	C.P.A. Problems	4	AC 14	C.P.A. Problems	4
U 9	Legal Aspects II	3	U 10	Legal Aspects II	3
C 11	Business Conference	½	C 12	Business Conference	½
	Liberal Elective	2		Liberal Elective	2
		12½			12½

*Curriculum II Banking and Finance*

## FIRST TERM

## SECOND TERM

No.	Course	Semester Hours	No.	Course	Semester Hours
<i>First Year</i>					
E 1	English 1	3	E 2	English I	3
H 1	Hist. of Civilization	3	H 2	Hist. of Civilization	3
M 21	Business Mathematics	3	M 22	Business Mathematics	3
AC 1	Accounting I	3	AC 2	Accounting I	3
Ec 1	Intro. to Economics	3	Ec 2	Econ. Hist. of U. S.	3
Gv 1-A	American Govt.	3	Gv 2-A	American Govt.	3
Ps 1-A	Orientation Problems	0	PE 2	Hygiene	1
PE 3-4	Physical Training	0	PE 3-4	Physical Training	0
		18			18

*Second Year*

E 3	English II	2	E 4	English II	2
Ps 1	Int. to Diff. Psych.	2	Ps 2	General Psychology	2
Ec 3	Economic Principles	2	Ec 4	Economic Principles	2
FI 3	Business Finance	2	FI 4	Business Finance	2
BU 1	Marketing Principles	2	BU 2	Marketing Principles	2
AC 3	Accounting II	2½	AC 4	Accounting II	2½
		12½			12½

*Third Year*

Ec 5	Economic Problems	2	Ec 6	Economic Problems	2
Ec 7	Money and Banking	2	Ec 8	Money and Banking	2
AC 5	Cost Accounting	2½	AC 6	Cost Accounting	2½
IN 5	Industrial Mgt. I	2	IN 6	Industrial Mgt. II	2
BU 3	Marketing Problems	2	BU 4	Marketing Problems	2
	Liberal Elective	2		Liberal Elective	2
		12½			12½

*Fourth Year*

FI 11	Public Utilities	2	FI 6	Corporation Finance	2
FI 13	Investments	2	FI 14	Investments	2
E 13	Effective Speaking	1	E 14	Effective Speaking	1
Ec 9	Statistics in Business	3½	Ec 10	Statistics in Business	3½
FI 9	Credit Analysis	2	U 8	Legal Aspects I	2
	Liberal Elective	2		Liberal Elective	2
		12½			12½

*Fifth Year*

FI 5	Public Finance	3	AC 10	Income Tax	3
FI 15	Bank Org. and Admin.	2	FI 16	Adv. Banking Probs.	2
FI 17	Insurance	2	FI 18	Insurance	2
C 11	Business Conference	½	C 12	Business Conference	½
U 9	Legal Aspects II	3	U 10	Legal Aspects II	3
	Liberal Elective	2		Liberal Elective	2
		12½			12½

# Curriculum III Business Management

## FIRST TERM

## SECOND TERM

No.	Course	Semester Hours	No.	Course	Semester Hours
<i>First Year</i>					
E 1	English I	3	E 2	English I	3
H 1	Hist. of Civilization	3	H 2	Hist. of Civilization	3
M 21	Business Mathematics	3	M 22	Business Mathematics	2
AC 1	Accounting I	3	AC 2	Accounting I	3
Ec 1	Intro. to Economics	3	Ec 2	Econ. Hist. of U. S.	3
Gv 1-A	American Govt.	3	Gv 2-A	American Govt.	3
Ps 1-A	Orientation Problems	0	PE 2	Hygiene	1
PE 3-4	Physical Training	0	PE 3-4	Physical Training	0
		18			18

<i>Second Year</i>					
E 3	English II	2	E 4	English II	2
Ps 1	Int. to Diff. Psych.	2	Ps 2	General Psychology	2
Ec 3	Economic Principles	2	Ec 4	Economic Principles	2
FI 3	Business Finance	2	FI 4	Business Finance	2
BU 1	Marketing Principles	2	BU 2	Marketing Principles	2
AC 3	Accounting II	2½	AC 4	Accounting II	2½
		12½			12½

<i>Third Year</i>					
Ec 5	Economic Problems	2	Ec 6	Economic Problems	2
Ec 7	Money and Banking	2	Ec 8	Money and Banking	2
AC 5	Cost Accounting	2½	AC 6	Cost Accounting	2½
IN 5	Industrial Mgt. I	2	IN 6	Industrial Mgt. II	2
BU 3	Marketing Problems	2	BU 4	Marketing Problems	2
	Liberal Elective	2		Liberal Elective	2
		12½			12½

<i>Fourth Year</i>					
BU 7	Sales Management	4	BU 8	Sales Management	4
E 13	Effective Speaking	1	E 14	Effective Speaking	1
Ec 9	Statistics in Business	3½	Ec 10	Statistics in Business	3½
FI 9	Credit Analysis	2	U 8	Legal Aspects I	2
	Liberal Elective	2		Liberal Elective	2
		12½			12½

<i>Fifth Year</i>					
<i>Courses required of all Management Students</i>					
BU 11	Business Policy	2	BU 12	Business Policy	2
U 9	Legal Aspects II	3	U 10	Legal Aspects II	3
C 11	Business Conference	½	C 12	Business Conference	½
	Liberal Elective	2		Liberal Elective	2

<i>Distribution Option</i>					
Bu 13	Advertising	2	BU 14	Advertising	2
BU 17	Retail Merchandising	3	BU 18	Retail Merchandising	3

<i>Production Option</i>					
AC 7	Adv. Cost Acctg.	1	AC 8	Adv. Cost Acctg.	1
IN 11	Methods Engineering	2½	IN 16	Personnel Adminis.	2
FI 17	Insurance	2	FI 18	Insurance	2

## *Synopses of Courses Offered*

On the pages which follow are given the synopses of courses offered in the several curricula of the College. Courses offered in the first semester bear odd numbers; those offered in the second semester bear even numbers.

Freshmen courses extend over a full semester of 18 weeks. Upperclass courses are uniformly 10 weeks in length each term. The University reserves the right to withdraw any course in which there is insufficient enrolment.

### *Accounting*

PROFESSORS D'ALESSANDRO and BRUCE; MESSRS. PATTERSON and GOLEMME

#### *AC 1 Accounting I*

This course presents the fundamental principles of accounting theory and practice in a manner designed to meet the needs of students who intend to specialize in accounting as well as those who require a knowledge of accounting as a preparation for the study of banking and finance, production management, and marketing. Beginning with a consideration of the need for and the purpose served by accounting, a study of the balance sheet and operating statement is presented so that the ultimate goal and purpose of accounting is understood before the mechanical methods of recording business transactions are presented. The course then takes up specific balance sheet accounts; the law of debit and credit; the theory of nominal accounts; construction and interpretation of accounts; the recording process; the trial balance; construction of financial statements; the need for adjustments at the end of the period; depreciation; deferred and accrued items.

*3 semester hour credits*

#### *AC 2 Accounting I*

This course continues the work of the first semester with increased emphasis placed on accounting and interpretation of accounts. The main topics covered are closing of books, starting the new period, comparative statements, control accounts, and the operation of petty cash systems.

*3 semester hour credits*

### AC 3 Accounting II

This course is a continuation of the fundamental principles of accounting. Greater emphasis is placed, however, on the accounting aspect of management. Special books, departmental accounts and statements, and accounting for manufacturing are specifically introduced. One of the main features of this course is the introduction of the analytical aspect of accounting.

*2½ semester hour credits*

### AC 4 Accounting II

The approach of AC 3 is continued with greater stress on the accounting rather than bookkeeping aspects. Continuity is aimed at throughout. Accounting for business organizations occupies the major part of the course. Formation and operation of partnerships and corporations are thoroughly covered. Special emphasis is placed on the valuation of partnership and corporation accounts. Problems dealing with branch accounting, installment sales, and bonds will also be studied in this course.

*2½ semester hour credits*

### AC 5 Cost Accounting

The structure of factory costs from the executive's viewpoint is studied in this course. The subject is approached chiefly from the management point of view. Problems are presented in a summarized form in order to stress the fundamental aspects of costs. Managerial control through the use of accounts is emphasized at the beginning of the course. Some of the specific topics covered are accumulation and distribution of cost data, process cost, job cost, historical cost, estimated cost, standard cost, and spoilage cost.

*2½ semester hour credits*

### AC 6 Cost Accounting

This course is designed to develop in the student the managerial ability to control production, operating, and distribution costs through the use of cost accounting and the budget. Methods of costing and controlling materials, labor, and expenses are considered in detail. Cost variations are analyzed. Joint cost and by-product cost are introduced.

*2½ semester hour credits*

### AC 7 Advanced Cost Accounting

The frame work of factory accounting is taken up in this course. Problems are presented chiefly in a summarized form in order to stress the fundamental aspects of the technic of cost accounting. The course is approached from the accounting point of view. Some of the specific topics covered are accumulation and distribution of cost control data, preparation of the budget as a control agency, executive reports, standard costs, spoilage cost, purchases, materials, and cost variations.

*1 semester hour credit*



### AC 8 *Advanced Cost Accounting*

This course is designed to develop in the student the analytical and critical power involved for the proper understanding of the various types of cost problems. The subject is approached from the accounting point of view. Problems dealing with materials, labor, and expenses are studied in detail. The advanced phases of cost are taken up such as costing of by-products, joint-cost, debatable points in cost accounting, cost systems, problems of unused capacity, and cost control in typical industries.

*1 semester hour credit*

### AC 9 *Auditing*

This course contemplates the application of accounting knowledge to the analysis and interpretation of accounting records. Specific cases are used for outlining the mode of procedure best adapted to the intelligent examination of accounting records and the compilation of reports on which the management can base plans for future operations. Balance sheet audits, detailed audits and special investigations for credit and other purposes receive due attention. The preparation and proper preservation of working papers is an essential feature of the course. Stress is laid on the matter of report writing and the compilation of statements and schedules that will be intelligible to the business man who is not an accountant.

*3 semester hour credits*

### AC 10 *Income Tax*

In this course the fundamental principles of the application of Federal and State income taxation are presented by the problem method whereby the principles are applied to a stated set of facts. The case problems will include methods of accounting for income, sales and exchanges, installment sales, dividends, compensation for services, tax-free securities, depreciation, obsolescence, depletion, bad debts, contributions, and withholding information at the source. The social security laws are introduced.

*3 semester hour credits*

### AC 11 *Advanced Accounting*

This course is designed to develop in the student the professional viewpoint. It will begin with a general review of the accounting principles studied in the first three years. Some new topics are introduced such as insurance, coinsurance, statements of affairs, receivers' accounts and reports, realization and liquidation statements, dissolution and liquidation of partnerships, statements of application of funds, investment accounting, venture accounts, and consignment sales.

*3 semester hour credits*

### AC 12 *Advanced Accounting*

This course is a continuation of AC 11 and in substance follows the same method of approach. Additional topics introduced are correction of statements; estates accounting covering wills, duties of executors and administrators; general, specific, and demonstrative legacies; principal and income; legal accounting to the probate court; foreign exchange, and an introduction to consolidated statements and reports.

*3 semester hour credits*

### AC 13 *C.P.A. Problems*

The purpose of this course is to provide for the application of the knowledge of accounting principles and practice gained in the preceding courses to the analysis and solution of complex problems involving a recognition of the economic, legal, and social aspects of various forms of business organization. The course content consists chiefly of problems given in C.P.A. examinations. All phases of partnership, corporation, bond, depletion, and cost accounting are critically covered.

*4 semester hour credits*

### AC 14 *C.P.A. Problems*

This course continues AC 13. Great emphasis is placed on the preparation of working papers and the taking of the C.P.A. examination. The topics covered in addition to a general review are consolidation, municipal accounting, bank accounting, brokerage accounting, adjustments of complex statements and reports, actuarial problems, and institutional accounting.

*4 semester hour credits*

## *Banking and Finance*

PROFESSOR LAKE; MR. TUTHILL

### FI 3 *Business Finance*

The fundamental principles of finance are approached in this course through an examination of the capital requirements and the skeletal structures of the basic forms of business organization. Such topics as promotion, proprietorships, partnerships, and corporations are studied with special attention being paid to the management, control, long and short-time financing, and expansion of business under the different forms.

*2 semester hour credits*

### *FI 4 Business Finance*

A continuation of FI 3 Business Finance. This course deals with the application of the principles of finance to such problems as working capital requirements, surplus, dividend and reserve policies, the relation of the corporation to banks and the investing public, and the problems of both trade and economic risk. The course concludes with an analysis of such combinations as trusts, holding companies, consolidations, and pools from both the public and financial points of view.

*2 semester hour credits*

### *FI 5 Public Finance*

One of the biggest problems confronting the people of all nations today is the question of taxation. In recognition of this fact and of the enormous difficulties facing business organizations and individuals because of the tax burden, the course in Public Finance is offered. This course teaches the kinds of taxes imposed by municipal, state, and federal governing bodies. Attention is given to the "trend" in taxation. Governmental borrowings and revenues are studied as to their general effect on the finances of individuals and business concerns. A large part of the time allowed for this course is spent in a study of the sources of revenue such as commodity taxes, highway taxes, general property taxes, taxes on business, poll taxes, income taxes, and death taxes.

*3 semester hour credits*

### *FI 6 Corporation Finance*

In this course the principles of finance which have been studied in FI 3 and FI 4 and there applied to small organizations are applied to the medium-sized and large corporation. An exhaustive study is made of all the classes of stocks and bonds, of the problems of promotion and expansion, the selling of new securities, inter-corporate relations, liquidations and reorganizations.

*2 semester hour credits*

### *FI 9 Credit Analysis*

The prime purpose of this course is to teach the methods of determining the credit worth of a business concern by a study and analysis of financial statements. In addition, such topics are considered as sources of credit information, credit reports, and credit agencies.

*2 semester hour credits*

### *FI 11 Public Utility Regulation and Finance*

The regulation of business is one of the foremost problems confronting the nation. It is not a new venture wholly. Certain businesses "affected with public interest" have been publicly controlled and supervised over a long period of time because of their unique character. This course presents the administrative, economic, and legal aspects of public utility regulation. Attention is focused upon the gas, electric, telephone, telegraph, street railway, motor carrier, and water company utilities. Use is made throughout the course of both text and case material in dealing with the various aspects of regulation by the public service commission, regulation by franchise, interstate problems of regulation, municipal regulation, and the relative advantages of public and private ownership.

The course also treats the subjects of valuation and rate-making; the determination of proper rate schedules between different classes of customers and service; the problems of capitalization and security regulation; depreciation; and holding companies.

*2 semester hour credits*

### *FI 13 Investments*

This course consists of a review of the principles of investment, a study of investment policies, and the mechanics and mathematics of investments.

*2 semester hour credits*

### *FI 14 Investments*

A practical study is made of the various fields of investment such as industrials, rails, banks, real estate, government, and foreign investments. The solution of actual problems of current investment interest involving the application of the principles of investment is a feature of the course.

*2 semester hour credits*

### *FI 15 Bank Organization and Administration*

This course deals with the organization and administration of the departments of commercial banks. A study is made of banking practices pertaining to internal operation, and inter-bank relations. The functions, rights, and liabilities of the bank, its officers, and employees, are examined in detail.

*2 semester hour credits*



### *FI 16 Advanced Banking Problems*

In this course students are taught to look at the problems confronting the banker from the executive's point of view. Through a series of problems, most of which are actual cases, the matter of loan and investment policies will be studied at length with other problems concerning methods of increasing the bank's efficiency, volume of business, and profits receiving the proper amount of attention.

*2 semester hour credits*

### *FI 17 Insurance*

After a survey of the fundamental principles of insurance, attention is concentrated upon the various types of insurance contracts. Property insurance receives major consideration although life insurance is not neglected. Throughout, the viewpoint of the business man is maintained.

*2 semester hour credits*

### *FI 18 Insurance*

In order to provide better understanding of the functions of insurance such topics receive attention as rate making, insurance organization, loss adjustment procedure, co-operative organizations in the insurance field, and government regulation of insurance. Insurance coverage planning concludes the course.

*2 semester hour credits*

## *Business Management*

PROFESSORS JACKSON and TATTON; MR. FENNELL

### *BU 1 Marketing Principles*

This course is designed to acquaint the student with the principles underlying the distribution of merchandise. Textbook assignments and lectures introduce a knowledge of the place of marketing in our modern economic order; the basic structure of markets; the main functions of marketing such as assembling, grading, storing, buying, selling and financing of goods; and the general classification of commodities into major types for the purpose of analytical study. Through this threefold approach, the student is led to an understanding of the functions or processes and the institutions involved in moving goods from producers to consumers.

*2 semester hour credits*



### *BU 2 Marketing Principles*

Continuing BU 1, this course gives further and more detailed consideration to the activities of the several types of middlemen such as brokers, wholesalers, and retailers, and their utilization as channels of distribution; the work of the commodity exchanges and co-operative marketing associations; and the development of chain stores, mail order houses, and department stores. The trend toward simplification and standardization, and recent steps toward governmental regulation of distribution are also discussed.

Other topics considered are market risk, pricing, selling terms and discounts, hedging, advertising, and the legal aspects of price maintenance. Supplementary lectures and illustrative material will be given to explain in some detail the methods used in marketing several specific commodities.

*2 semester hour credits*

### *BU 3 Marketing Problems*

Using actual case material this course analyzes and suggests solutions to a wide variety of selling problems in typical industries and trades. It is aimed throughout to develop the analytical powers of the student so that he may decide a problem from the viewpoint of a marketing executive. Consideration is given to consumers' buying habits and buying motives, to the important types of retail and wholesale enterprise, and to an analysis of the channels of distribution with the object of formulating a basis for selecting suitable channels for various products. The marketing of industrial goods is studied including certain special problems such as hedging. Producers' co-operative marketing is also given attention.

*2 semester hour credits*

### *BU 4 Marketing Problems*

This course continues the work of Marketing Problems BU 3 and deals with a number of advanced problems in this field. Marketing organization is considered especially in respect to merchandising, credit, and service. The fundamental principles involved in the control of sales force are carefully outlined, followed by a discussion of trade marks and brands and the use of selling agents, brokers, and missionary salesmen. A survey is made of price policies including quantity discounts, "trade-in" allowances, installment sales, and resale price maintenance.

*2 semester hour credits*

### *IN 5 Industrial Management I*

The course in industrial management places emphasis on the administrative phases of factory and plant operation. A textbook is used to present elementary principles and problem material which are supplemented by lectures.

The first part of the course deals with the location of the plant; plant design, structure, and plant services; plant layout; standardization, simplification, and specialization; a brief history of United States industry, the public relations of industry and certain aspects of personnel administration.

*2 semester hour credits*

### *IN 6 Industrial Management II*

This course is a continuation of Industrial Management IN 5. It deals with the control of plant operations. Each department of a modern industrial concern is considered, emphasis being placed on the organization and management problems confronted and how they may be handled, with the intention that the student shall become familiar with the activities and general working of each department and the relationship which the departments hold to one another and to the business as a whole. In detail are considered: budgeting, standards of performance (time and motion study, wage systems), organization, routing, scheduling, dispatching, inventory control, quality control, and visual controls such as the organization chart, planning board, and departmental report.

*2 semester hour credits*

### *BU 7 Problems in Sales Management*

The study of actual case material forms the basis of this course. In each case the facts are analyzed and a solution proposed. The major problems of sales management may be stated as questions: What to sell? To whom shall products be sold? At what price and terms shall products be sold? The answering of these questions involves a consideration of merchandising policies and organization, market channels, market research and analysis, and pricing and credit policies.

*4 semester hour credits*

### *BU 8 Problems in Sales Management*

Continuing BU 7 Problems in Sales Management this course deals primarily with the following problems: sales methods, sales promotion, sales campaigns, management of sales force, and the planning and control of sales operations.

In the field of sales management the solution of problems involves two types of mental effort. First, there is the suggestion

of plans or alternatives, a task requiring imagination; second, there is the choice between the alternatives so suggested, a matter of judgment. It is essential that the student of business management acquire the habit of weighing alternatives before deciding, but much more is to be gained if the student possesses and develops imagination.

The purpose of the courses in Sales Management is principally to develop an approach and technique for the solution of problems, so the student will be able to analyze and think through the problems which must be faced later when he arrives at a post of responsibility.

*4 semester hour credits*

### *BU 11 Business Policy*

After a survey of the social, geographic and religious factors which influence the conduct of business, attention is turned to the development of current business policies. The structure and dynamics of modern business receive careful analysis with respect to the determination of fundamental practices of business. Particular emphasis is placed upon the ramifications of judicial interpretation of the Sherman Law.

*2 semester hour credits*

### *BU 12 Business Policy*

A continuation of BU 11 Business Policy. In this course the ethical features of business policy formation receive major stress. Price policies, such as resale price maintenance, price discrimination, price-cutting, competitive bidding, and such unfair methods of competition as business piracy, misrepresentation, and espionage are studied. The study of self-regulation of business through trade associations and agreements with reference to advertising, cancellation of contracts, limitation of competition, and commercial arbitration concludes the course.

*2 semester hour credits*

### *BU 13 Advertising Practices*

This course deals with the principles of advertising concerning the planning, co-ordinating and timing of national and local campaigns. Students receive actual practice in writing copy, selecting appeals, and making layouts.

*2 semester hour credits*

### *BU 14 Advertising Problems*

The analysis and solution of a wide variety of advertising problems and cases based upon the actual business experience of a large number of firms constitutes the content of this course.

Model solutions are advanced. Constructive thinking in advertising methods is developed by the student in the same manner by which an advertising executive acquires his technique.

*2 semester hour credits*

### *BU 17 Retail Merchandising*

The purpose of this course is to study the principles of successful retailing and to solve actual problems involving these principles. Layout, location and equipment of retail stores are first considered. Store organization, market contacts, buying, receiving and marking merchandise, and invoice procedure are taken up next. Mark-up and mark-down are dealt with in detail through practical examples requiring solution by the students, as are inventory and stock control methods. Merchandise planning is discussed and illustrated.

*3 semester hour credits*

### *BU 18 Retail Merchandising*

This course continues the work of Retail Merchandising, dealing with expense distribution, retail credits and collections, and with special phases of retail accounting. Other topics considered are: fashion, salesmanship, customer service, and the training and welfare of employees. The promotion of sales events and retail advertising practices are analyzed from the viewpoint of the store executive.

*3 semester hour credits*

### *IN 11 Methods Engineering*

This course comprises a detailed study of time and motion study work, a complete study and actual practice in micromotion which is the use of motion pictures in the motion study work, a preparation of simo-charts (the use of colored charts and symbols called Therbligs which show all the elements in an operation cycle), and the making of process charts which is the use of specifically designed symbols, or industrial shorthand, to record motion analysis.

*2½ semester hour credits*

### *IN 16 Personnel Administration*

A consideration of what modern industry is doing in making an application of science to the obtaining and retaining of an effective and co-operative working force. The student studies thoroughly personnel administration systems now in use including the preparation and use of many forms among which are the occupational description, application, and interview blanks, promotion charts, wage scale, personnel control charts, etc. In addition, such subjects as wage payment plans, profit sharing, the training of workmen, workers' security plans and labor union, and management relationships are given attention.

*2 semester hour credits*



## English

PROFESSORS MELVIN, HOLMES, and MARSTON; MR. CHAPMAN

### E 1 English I

A course in composition with especial emphasis on exposition. Principles of grammar and rhetoric are reviewed rapidly but thoroughly. Contemporary essays are studied both for their value as models and as enrichment of the student's background. Themes on subjects largely drawn from or related to the student's life and study are a weekly requirement.

*3 semester hour credits*

### E 2 English I

A continuation of E 1. Toward the end of the term a careful study is made of letter writing.

*3 semester hour credits*

### E 3 English II

This course combines advanced work in composition with studies in contemporary drama beginning with Ibsen. Eight plays by American and European dramatists are read and analyzed. Class discussions aim to develop in the student an ability to appreciate literary values. In the assignment and correction of weekly themes, which form the basis of the work in composition, emphasis is laid on effective theme organization and precision in the expression of ideas.

*2 semester hour credits*

### E 4 English II

The novel is studied through an analysis of examples of the various types of contemporary fiction. Outside reading is an important part of the work of the course. Weekly theme writing is continued.

*2 semester hour credits*

### E 13 Effective Speaking

This course offers practical training in the preparation and presentation of the various types of speeches. The instruction will be planned to eliminate defects of voice, posture, etc., and to develop in the student an ability to speak easily, naturally, and forcefully.

*1 semester hour credit*

### E 14 Effective Speaking

Continued practice in oral presentation, impromptu and extempore speaking, organization of material, consideration of the audience, etc., form the basis of the course.

*1 semester hour credit*



# Economics

PROFESSORS LAKE and HAMILTON; MR. REGAN

## *Ec 1 Introduction to Economics*

In order to provide an adequate background for the study of economics this first course emphasizes the economic resources of our country and the part played by these resources in the development of our modern industrial society. The course is more concerned with promoting the comprehension of basic concepts than with stressing encyclopedic knowledge of masses of details. In the latter part of the semester frequent use is made of motion pictures to illustrate the processes and peculiar economic characteristics of specific industries.

*3 semester hour credits*

## *Ec 2 Economic History of the U. S.*

This course is designed to complete the factual background which is needed for the most successful study of theoretical economics. The economic development of the United States is traced from the colonial period to the present with special emphasis upon the period since the Civil War. Stress is laid upon the importance of economic factors and changes in our history in the description of the development of manufacturing, agriculture, domestic and foreign commerce, finance and banking, transportation and labor organizations. Consideration is given to European developments which have been closely related to those of the United States.

*3 semester hour credits*

## *Ec 3 Economic Principles*

A thorough grounding in the fundamental principles and laws of economics is the aim of this basic course. The main topics include: the nature and organization of production, the nature and importance of wants, the relation of money and prices, the process of exchange, and the nature of international trade.

*2 semester hour credits*

## *Ec 4 Economic Principles*

A continuation of Ec 3. A careful analysis is made of the determination of price under conditions of competition and monopoly, and of the distribution of wealth and income in the form of wages, economic rent, interest, and profits. The elements of insurance are discussed in connection with profits.

*2 semester hour credits*

### *Ec 5 Economic Problems*

In this course the application of economic principles to some of the major economic problems of modern society is emphasized. The problems studied include consumption, protective tariffs and subsidies, labor problems such as unemployment and labor unions, and the business cycle.

*2 semester hour credits*

### *Ec 6 Economic Problems*

A continuation of Ec 5 Economic Problems. Among the problems considered are the following: price stabilization, the agricultural problem, the relation of government to business including the control of monopolies and public utilities, insurance, public finance, and proposals for the remodeling and improving of the economic system.

*2 semester hour credits*

### *Ec 7 Money and Banking*

This course provides a detailed analysis of the functions of money and credit in our economic system. Consideration is given to the nature of money, monetary standards with special reference to the gold standard, the theory of bank credit, the structure of our banking system, and the organization of the American money market.

*2 semester hour credits*

### *Ec 8 Money and Banking*

A continuation of Ec 7 Money and Banking. This course is devoted to such problems as the quantity theory of money, the control of money and credit by the central bank, the policies of the Federal Reserve Board, and the international aspects of the control of money and credit. Throughout the course special attention is paid to current development in money and banking.

*2 semester hour credits*

### *Ec 9 Statistics in Business*

This course is intended to give the student an understanding of statistical principles and methods and their practical application in the administration of modern business. A study is made of the nature, sources, collection and organization of business facts; the presentation of such facts in tabular or graphic form, the various averages, measures of dispersion, and the construction and use of index numbers. Laboratory periods provide an opportunity for each student to demonstrate his ability to apply the principles studied.

*3½ semester hour credits*

### *Ec 10 Statistics in Business*

The analysis of time series occupies the major portion of this continuation of Ec 9 Statistics in Business, and includes the methods of obtaining trends, seasonal indexes, and the measurement of cyclical variation. Correlation of time series is related to the problems of business forecasting. In the laboratory work each student is required to make a complete analysis of an individual time series, preferably associated with his co-operative work.

*3½ semester hour credits*

## *History and Government*

PROFESSOR POTTER; MR. DEMETER

### *H 1 History of Civilization*

This course is primarily a background course. It consists of a brief outline of the origin of man, palaeolithic and neolithic men and cultures, the transition to copper and bronze cultures, the development of writing and various alphabets, and the early civilizations of Asia, Egypt, Greece and Rome.

*3 semester hour credits*

### *H 2 History of Civilization*

This course is a continuation of H 1 with an account of the later history of Rome, medieval learning and literature, the Crusades, religious change in Europe, and national cultures and science in the 16th and 17th centuries.

*3 semester hour credits*

### *Gv 1-A American Government and Politics*

The study of our National Government with respect to its organization and function; its powers and limitations under the Constitution; its legislative, administrative and judicial machinery under the party system of government and bureaucracy.

*3 semester hour credits*

### *Gv 2-A American Government and Politics*

A more careful study of the relationships of our federal, state, and municipal governments, including an analysis and comparison of the various state governments and types of municipal government with respect to state and local agencies for carrying out the executive, legislative and judicial functions of government in a democratic country.

*3 semester hour credits*

# Psychology

PROFESSOR ESTES

## *Ps 1-A Orientation Problems*

This course is designed to make the entering student explicitly aware of those facts, principles, and techniques which are significantly related to the maintenance of his intellectual efficiency and mental health in the college environment. Lectures, assigned reading, and individual conferences.

## *Ps 1 Introduction to Differential Psychology*

An elementary survey of the psychology of individual differences including personality differences, together with a presentation of some of the practical applications of the findings of differential psychology.

*2 semester hour credits*

## *Ps 2 General Psychology*

An introduction to general experimental psychology. The topics considered include learning, thought, memory, perception, and sensation.

*2 semester hour credits*

# Other Required Courses

## *PE 2 Hygiene*

One class hour a week is devoted to the study of information closely related to the physical training work and to personal and mental hygiene. For each class lecture the student is assigned at least one hour of outside study based on the required textbook. The course includes enough of the fundamentals of physiology and anatomy to enable the student to understand such parts of the course as require some knowledge of these subjects.

DR. KONTOFF; PROFESSOR TATTON

*1 semester hour credit*

## *PE 3-4 Physical Training*

All first-year students are required to take physical training. Health, strength, and vitality do not come by chance, but by constant attention to those factors involved in their development. It is very essential for the student to acquire good habits of life.



The work in the course includes a formal calisthenic program, special exercise classes for the correction of postural defects, participation in the regular athletic program, including baseball, basketball, hockey, track, and many types of informal games. All members of the class are also required to learn to swim.

Students wishing to be excused from physical training, because of physical defects, are required to present a petition to the faculty supported by a physician's certificate.

PROFESSORS PARSONS AND TATTON; MESSRS. DUNN, GALLAGHER, LAVEAGA AND HULTGREN

### *U 8 Legal Aspects of Business I*

The object of law is order, and the result of order is that a man can look ahead with some sort of security as to the future. Without of this ability to look ahead with security as to the future provided by the enforceability of promises, the transaction of present day business would be impossible. We are so accustomed to making future and binding arrangements that we seldom stop to realize that the law of contracts is an essential condition of our modern exchange society.

This course in its entirety is devoted to the study of contracts as they affect the business man. After a preliminary general survey of the field of law, students are introduced to the various classifications of contracts, the nature of offer and acceptance, consideration, capacity of parties, legality, and formality. Consideration of the operation and discharge of contracts completes the course. Decided cases are analyzed.

PROFESSOR JACKSON

*2 semester hour credits*

### *U 9 Legal Aspects of Business II*

This course covers the law of agency and the law of sales as they affect the business man. First is considered the creation of the relation of principal and agent, and the scope of the agent's authority. Then follow the duties and liabilities between principal and agent and their liabilities to third persons. Under the subject of sales, the transfer of title to personal property is dealt with as it affects the rights and liabilities of buyer, seller, and third parties. The course concludes with the methods of terminating the agency relation.

PROFESSOR JACKSON

*3 semester hour credits*

### *U 10 Legal Aspects of Business II*

This course deals chiefly with the subject of negotiable instruments. The widespread use of credit instruments in commercial transactions demands a knowledge of the law of bills and notes on the



part of the business man. The various types of instruments are first discussed, the requirements for negotiability, the negotiation by endorsements of various kinds, the rights of holders in due course, the rights and liabilities of other parties, the requisites for charging secondary parties, and methods of discharge. Brief consideration is given to bailments, suretyship, and guaranty.

PROFESSOR JACKSON

3 semester hour credits

### M 21 *Business Mathematics*

The course in Business Mathematics is intended as a general preparation for the specialized mathematics which appears in the various courses of the different curriculums. This course starts with a thorough review of fractions, decimals, per cent, ratio, proportion, and variation. This is followed by simple interest and discount, exponents, logarithms, progressions, series, and compound interest and discount. The problems used are in the fields of business practice.

MESSRS. WINGATE, MINZNER, AND BLOOMFIELD

3 semester hour credits

### M 22 *Business Mathematics*

This is a continuation of M 21. The subjects covered are annuities, sinking funds, amortization, depreciation, bonds, graphs, charts, and use of slide rule. Some work in the mathematics of statistics is introduced near the end of the course.

MESSRS. WINGATE, MINZNER, AND BLOOMFIELD

2 semester hour credits

### C 11 *Business Conference*

This course is designed to bring about analytical thinking and systematic planning of the "after-graduation-employment" problem. It is conducted as an open discussion class by the Department of Co-operative Work. Each Co-ordinator has in class those students who have been placed and supervised on co-operative work by him. Each student analyzes and applies to himself as the "product" the fundamental principles of merchandising. Prominent men who are leaders in the fields of employment counselling, business, or engineering present the employers' viewpoints. Thus the graduating seniors are brought face to face during the year with one of the most important and perplexing problems of life, namely, how to "sell their services," thereby aiming to bring a co-ordinated training of theory and practice to a logical conclusion.

PROFESSOR NIGHTINGALE

½ semester hour credit

### C 12 *Business Conference*

This course is the sequel to C 11 and consists of the practical application of the techniques of job-getting which have been analyzed and discussed in that course. It is conducted on a conference rather than on a class basis, the major portion of the time being devoted to the planning and writing of letters to and securing interviews with prospective employers. It is intended that this course will culminate in the attainment by each student of his after-graduation job.

PROFESSOR NIGHTINGALE

$\frac{1}{2}$  semester hour credit

### *Business Administration Theses*

A thesis in the College of Business Administration is considered to be an essay involving the statement, analysis, and solution of some problem in a special field of business administration. Its purpose is to demonstrate a satisfactory degree of initiative and power of original thought and work on the part of the candidate. A mere resume of existing knowledge in some subject is not acceptable. This, it is true, must usually be made, but in addition thereto the student must show his ability to deal constructively with the data he has collected and his power to draw significant and reliable conclusions from his investigations. The completed thesis will be examined for acceptance or rejection from the technical viewpoint by the Professional Departments interested and then forwarded to the Secretary of the Day Division. Final approval of the thesis rests with the Dean. When it is accepted, the thesis becomes the property of the school and it is not to be printed, published, nor in any other way made public except in such manner as the Professional Department and the Dean shall jointly approve.

Theses are not required of seniors in the College of Business Administration. To certain students who wish to do so, however, the privilege of writing a thesis may be granted by the Faculty Committee on Theses in accordance with the following regulations:

1. To be eligible to write a thesis a student must have attained a scholastic average of at least 2.0 or better during his middle year and the first half of his junior year.
2. Students who have met this minimum requirement may petition the Thesis Committee for the privilege of substituting a thesis for any one of the required courses of the fifth year.
3. In his petition the student must state the subject which he proposes to investigate and give a brief statement of the purpose and scope of the proposed thesis.

4. Petitions for the privilege of writing theses must be submitted in writing to the head of the student's Professional Department not later than the middle of the second college period of the junior year.

5. The Committee on Business Administration Theses comprises Dean Wilfred S. Lake, Chairman, Professor Robert Bruce, Professor Julian E. Jackson, and Professor Alfred D'Alessandro.

### *Liberal Electives*

In addition to the prescribed courses in each curriculum, students may elect one liberal arts course in each of the last three years. These liberal electives may be chosen from courses offered by the College of Liberal Arts as listed hereafter, provided they are scheduled at a time when the students are free to take them.

## *Economics*

### *Ec 11 Labor Problems*

An intensive study of the labor problems of modern industry constitutes the content of this course. Unemployment and other grievances of the worker, including industrial accident and disease, inadequate wages, long hours, undesirable working conditions, child and woman labor, etc., are carefully analyzed. Labor unions, representing the workers' effort to solve the above problems, receive extended attention with an appraisal of their policies and accomplishments. Employee representation, profit-sharing plans and similar devices of the employer to meet the same problems are also examined critically. Other topics of the course include the efforts of the state to prevent and settle industrial disputes; labor legislation; labor and politics; social insurance; and socialism and co-operation in connection with the solution of labor problems.

*Pre-requisite:* Ec 3, Ec 4

*2 semester hour credits*

### *Ec 12 Economic Systems*

This is an intensive analysis of alternative economic systems. Various criteria for evaluating the different systems are developed.

*Pre-requisite:* Ec 5, Ec 6

*2 semester hour credits*

### *Ec 13 Business Cycles*

After a study of the conditions which underlie cyclical fluctuations in prices, volume of trade, physical production, and employment, a careful analysis is made of the more significant theories of the business cycle. The possibilities of controlling such fluctua-

tions and of initiating recovery receive extended attention. Throughout the course emphasis is placed upon the current phase of the business cycle and its peculiar problems.

*Pre-requisite: Ec 5, Ec 6*

*2 semester hour credits*

### *Ec 14 International Economic Relations*

A careful examination of the important principles of international trade and finance precedes a critical survey of the international commercial policies of modern nations, with special reference to the United States. Such broader problems as the international control of raw materials, exchange restrictions, international cartels and the economic activities of the League of Nations and other international organizations are considered.

*Pre-requisite: Ec 5, Ec 6*

*2 semester hour credits*

### *Ec 15 History of Economic Thought*

A critical review of the origin and development of economic thought from the ancient world to modern times is the aim of this course, since familiarity with the efforts of great economic thinkers in the past is essential for the thorough understanding of modern economic theory. After briefly noting the contributions of Plato and Aristotle, the early Christian fathers, and the writers of the Middle Ages, each of the main schools of economic thought is taken up in turn: the Mercantilists, the Physiocrats, the Classical School, the Socialists, the Historical School, the Austrian School, and Alfred Marshall.

*Pre-requisite Ec 5, Ec 6*

*2 semester hour credits*

### *Ec 16 Advanced Economic Theory*

The course introduces the student to the more complex aspects of economic theory. Particular consideration is given to the major modern theoretical problems.

*Pre-requisite: Ec 15*

*2 semester hour credits*

## *English*

### *E 15 Survey of English Literature*

A survey of English literature to 1800. After a brief study of the social and political background of each literary period, the writing of the period is considered, and the more important writers are studied and read in detail. The purpose of the course is to give the student an appreciation of English literature as a whole, and an intimate knowledge of its major figures.

*2 semester hour credits*



### *E 16 Survey of English Literature*

A survey of English literature from 1800 to the present century. The outstanding writers are read, studied, and related to the general background of nineteenth-century England. The purpose of the course is to give the student an understanding of the writers who contributed most to the formation and development of modern literature in England.

*2 semester hour credits*

### *E 19 Shakespeare*

An introduction to the work of Shakespeare. The Elizabethan period, Shakespeare's London, the Elizabethan stage and audience, and the plays of Shakespeare's contemporaries will be discussed in lectures. Five plays will be studied.

*2 semester hour credits*

### *E 20 Shakespeare*

Lectures will be given on Shakespearean grammar, the text of Shakespeare, editors' problems, etc. Four plays will be carefully analyzed.

*2 semester hour credits*

### *E 25 American Literature to 1860*

A survey of American literature from colonial times to the triumph of the transcendental movement in New England. The work of Bryant, Irving, Cooper, Poe, Emerson, Thoreau, Lowell, Holmes, Longfellow, and Melville will be emphasized.

*2 semester hour credits*

### *E 26 American Literature After 1860*

Continuing E 25, the course will consider the rise of realism after the Civil War, the development of American humor, the appearance of local color writers, and modern trends since 1900.

*2 semester hour credits*

## *Government*

### *Gv 3 Municipal Government*

This course is a study of the machinery of city government in the United States, treating specifically the growth of the American city, the duties and powers of the municipal corporation, the organs of municipal government and their interrelations, and an analysis of the frame-work and functionalizing mechanism of municipal organization.

*2 semester hour credits*



### *Gv 4 Comparative Government*

A course which presents the processes and institutions by which government is being attained in the leading nations of the world. The course is designed to give breadth of view and develop a sympathetic appreciation of what people of other races and nationalities are doing to meet the demands of modern society.

*2 semester hour credits*

### *Gv 5 American Constitutional Law*

Following a careful study of the influences affecting the framing of the Constitution, attention is turned to the leading constitutional principles of the American government as developed through judicial interpretation.

*2 semester hour credits*

### *Gv 6 American Constitutional Law*

A continuation of Gv 5. Primary emphasis is placed upon the relation of constitutional law to present day problems with particular reference to such items as "due process of law" and "inter-state commerce".

*2 semester hour credits*

### *Gv 7 Origins of Political Theory*

A survey of political philosophy from Plato and Aristotle to Bentham. The nature, origin, forms, and ends of the state and government are covered.

*2 semester hour credits*

### *Gv 8 Modern Political Theory*

A critical study is made of the major developments in political theory since Bentham with special reference to the influence of these developments upon American politics and political institutions. Attention is paid to the modern conflict between the democratic and the totalitarian conceptions of the state.

*2 semester hour credits*

## *History*

### *H 5 Europe, 1789-1870*

This course aims at describing and interpreting the development of European states from the French Revolution to 1870. Major topics include the Metternich system, the emergence of French Republicanism, and the unification of Italy and Germany. Non-political factors receive much attention throughout the course.

*2 semester hour credits*

### *H 6 Europe, 1870-1938*

The international relationships which precipitated the tragedy of 1914 are considered. The rise of militarism and nationalism, secret diplomacy, propaganda and the press, the "incidents" which led to the World War, the conduct of the war, the peace treaties, and the rise of socialism and fascism are discussed in this course.

*2 semester hour credits*

### *H 9 The United States to 1865*

This course is an interpretation of the events which shaped the American nation to the Civil War. Social customs, economic influences, racial contributions, and humanitarian movements are not neglected even though the political history is stressed.

*2 semester hour credits*

### *H 10 The United States Since 1865*

Major attention is given to the social, economic, and political foundations of recent history in this survey of the transition of America from an agricultural to an urban industrialized society since the Civil War. Consideration is given to the problems arising with the emergence of America as a world power.

*2 semester hour credits*

## *Psychology*

### *Ps 7 Social Psychology of Everyday Life*

A course devoted to the psychological examination of some of the phenomena observable in everyday social life. These include customs, crazes, fashions, rumor, propaganda, crowds, leadership, competition, and co-operation.

*2 semester hour credits*

### *Ps 8 Social Psychology, Theory, and Methods*

A survey of the field of social psychological theory and an examination of the experimental technique utilized in this field of psychology. Special emphasis is placed upon attitudes and their measurement.

*2 semester hour credits*

# Sociology

## S 3 Social Problems

Attention is given the nature, complex causation, and inter-relatedness of social problems in general. Cultural change with its attendant lags, as well as other social forces and conflicts, are studied. While sociological theory is occasionally introduced to clarify the problem at hand, the course is essentially practical in character. Such problems as poverty and unemployment, race antagonisms, population pressures, and the broken home are considered. Optional field trips to various institutions give concreteness to the problems studied.

*2 semester hour credits*

## S 4 Social Pathology

Similar to the course in Social Problems in background and approach, this study deals with the maladjustments and ills of human society. Emphasis is given those pathological conditions which exist in relations between the individual and the group. Typical subjects presented include mental defectiveness and disease, alcoholism and drug addiction, suicide, delinquency and crime, and pathologies of domestic relations. The field trips arranged for this course add to the practical knowledge of the social ills which are studied.

*2 semester hour credits*

## S 7 Principles of Social Ethics

To understand more clearly the meaning of morality in social relations is the aim of this study. Right and wrong conduct is analyzed in the light of the highest values for human society. Moral laws are discussed, and the various systems of ethics are evaluated. Scientific attitudes are encouraged in order that one's moral judgments be compatible with one's best reflective thought.

*2 semester hour credits*

## S 9 Problems in Social Ethics

Problems arising from differences in moral standards found in the various social groups will be examined. The question of ethical relativism and determinism will be considered. A selected number of specific problems in social ethics will be discussed.

*2 semester hour credits*

### S 10 *Social Progress*

The historical development of the theory of progress, contemporary concepts of social progress, the agents of progress, and the phenomenon of regression are several of the subjects for study. The course is based on Hertzler's *Social Progress*, supplemented with lectures and collateral readings.

*2 semester hour credits*

### S 11 *Social Control*

The methods by which social forces are controlled is the fundamental question with which the course deals. External and internal types of control of the social organism are discussed. The use of violence, the power of public opinion, and the application of certain principles of social psychology are examined.

*2 semester hour credits*

### S 16 *Urban Sociology*

Upon studying the complex human society found in the various cities of the world, this course then turns to an analysis of the modern American city. Its types, social values, and pathological elements are discussed. Methods of city planning are considered. The belief on the part of some sociologists that democracy is doomed by its cities is examined in the light of typical problems of urban society.

*2 semester hour credits*

## NORTHEASTERN UNIVERSITY

## DAY DIVISION

*Courses of Instruction*

1939-1940

Course Number	Course	Semester Hours
<b>ACCOUNTING</b>		
AC 1	Accounting I.....	3
AC 2	Accounting I.....	3
AC 3	Accounting II.....	2½
AC 4	Accounting II.....	2½
AC 5	Cost Accounting.....	2½
AC 6	Cost Accounting.....	2½
AC 7	Advanced Cost Accounting.....	1
AC 8	Advanced Cost Accounting.....	1
AC 9	Auditing.....	3
AC 10	Income Tax.....	3
AC 11	Advanced Accounting.....	3
AC 12	Advanced Accounting.....	3
AC 13	C.P.A. Problems.....	4
AC 14	C.P.A. Problems.....	4
<b>BANKING AND FINANCE</b>		
FI 3	Business Finance.....	2
FI 4	Business Finance.....	2
FI 5	Public Finance.....	3
FI 6	Corporation Finance.....	2
FI 9	Credit Analysis.....	2
FI 11	Public Utility Regulation and Finance..	2
FI 13	Investments.....	2
FI 14	Investments.....	2
FI 15	Bank Organization and Administration	2
FI 16	Advanced Banking Problems.....	2
FI 17	Insurance.....	2
FI 18	Insurance.....	2
<b>BUSINESS MANAGEMENT</b>		
BU 1	Marketing Principles.....	2
BU 2	Marketing Principles.....	2
BU 3	Marketing Problems.....	2
BU 4	Marketing Problems.....	2
BU 7	Problems in Sales Management.....	4
BU 8	Problems in Sales Management.....	4
BU 11	Business Policy.....	2



*Courses of Instruction*

Course Number	Course	Semester Hours
<b>BUSINESS MANAGEMENT (Continued)</b>		
BU 12	Business Policy.....	2
BU 13	Advertising Practices.....	2
BU 14	Advertising Problems.....	2
BU 17	Retail Merchandising.....	3
BU 18	Retail Merchandising.....	3
IN 5	Industrial Management I.....	2
IN 6	Industrial Management II.....	2
IN 11	Methods Engineering.....	2½
IN 16	Personnel Administration.....	2
<b>CO-ORDINATION</b>		
C 11	Business Conference.....	½
C 12	Business Conference.....	½
<b>ECONOMICS</b>		
Ec 1	Introduction to Economics.....	3
Ec 2	Economic History of the United States.....	3
Ec 3	Economic Principles.....	2
Ec 4	Economic Principles.....	2
Ec 5	Economic Problems.....	2
Ec 6	Economic Problems.....	2
Ec 7	Money and Banking.....	2
Ec 8	Money and Banking.....	2
Ec 9	Statistics in Business.....	3½
Ec 10	Statistics in Business.....	3½
<b>ENGLISH</b>		
E 1	English I.....	3
E 2	English I.....	3
E 3	English II.....	2
E 4	English II.....	2
E 13	Effective Speaking.....	1
E 14	Effective Speaking.....	1
<b>GOVERNMENT</b>		
Gv 1-A	American Government and Politics ...	3
Gv 2-A	American Government and Politics ...	3
<b>HISTORY</b>		
H 1	History of Civilization.....	3
H 2	History of Civilization.....	3

*Courses of Instruction*

Course Number	Course	Semester Hours
<b>LIBERAL ELECTIVES</b>		
Ec 11	Labor Problems.....	2
Ec 12	Economic Systems.....	2
Ec 13	Business Cycles.....	2
Ec 14	International Economic Relations.....	2
Ec 15	History of Economic Thought.....	2
Ec 16	Advanced Economic Theory.....	2
E 15	Survey of English Literature.....	2
E 16	Survey of English Literature.....	2
E 19	Shakespeare.....	2
E 20	Shakespeare.....	2
E 25	American Literature to 1860.....	2
E 26	American Literature after 1860.....	2
Gv 3	Municipal Government.....	2
Gv 4	Comparative Government.....	2
Gv 5	American Constitutional Law.....	2
Gv 6	American Constitutional Law.....	2
Gv 7	Origins of Political Theory.....	2
Gv 8	Modern Political Theory.....	2
H 5	Europe, 1789-1870.....	2
H 6	Europe, 1870-1938.....	2
H 9	The U. S. A. to 1865.....	2
H 10	The U. S. A. since 1865.....	2
Ps 7	Social Psychology of Everyday Life.....	2
Ps 8	Social Psychology, Theory and Methods.....	2
S 3	Social Problems.....	2
S 4	Social Pathology.....	2
S 7	Principles of Ethics.....	2
S 9	Problems in Social Ethics.....	2
S 10	Social Progress.....	2
S 11	Social Control.....	2
S 16	Urban Sociology.....	2
<b>OTHER REQUIRED COURSES</b>		
PE 2	Hygiene.....	1
PE 3-4	Physical Training.....	0
U 8	Legal Aspects of Business I.....	2
U 9	Legal Aspects of Business II.....	3
U 10	Legal Aspects of Business II.....	3
M 21	Business Mathematics.....	3
M 22	Business Mathematics.....	2
<b>PSYCHOLOGY</b>		
Ps 1-A	Orientation Problems.....	0
Ps 1	Introduction to Differential Psychology.....	2
Ps 2	General Psychology.....	2

*Distribution of Students in College of  
Business Administration  
By States and Countries  
1938-1939*

Massachusetts . . . . .	370
Connecticut . . . . .	21
New York . . . . .	18
Maine . . . . .	13
New Hampshire . . . . .	9
Rhode Island . . . . .	3
New Jersey . . . . .	2
Pennsylvania . . . . .	2
Vermont . . . . .	1

*Foreign Country*

Canada . . . . .	2
Total . . . . .	<u>441</u>

*Directory of Students*  
**COLLEGE OF  
 BUSINESS ADMINISTRATION**

*Freshmen*  
 1938-1939

NAME	HOME ADDRESS
Allegra, Salvatore J.	Hartford, Connecticut
Alston, Donald	Lawrence
Anderson, Richard D.	New Haven, Connecticut
Andrews, Harlow P.	Framingham
Baker, Bradford M.	Wakefield
Bardwell, C. Lamont	Milford, New Hampshire
Barrett, Frank A., Jr.	Brighton
Barry, Edward T.	Wellesley Hills
Begley, Edward L.	Arlington
Bellamacina, Angelo	Somerville
Bennett, Harrison L.	South Sudbury
Benson, Alfred N.	Arlington
Bentley, Donald E.	Winthrop
Berlin, Morry S.	Brighton
Bikofsky, Allan M.	Roxbury
Bisbee, Roger A.	Braintree
Bloch, Leslie	Cambridge
Bolz, William R.	Uncasville, Connecticut
Boyle, Herbert P.	Newton Highlands
Boyle, Marcus	Hatfield
Brennan, George J. E.	Boston
Briggs, James T.	Canton
Broeker, Roger J.	Mineola, New York
Brownville, Richard D.	Brookline
Burgess, Phillip B.	Grafton
Butler, Arthur M., Jr.	Framingham
Cammarata, Joseph G.	Arlington
Candis, Gregory G.	Boston
Cann, Francis	Lynn
Card, Fred	Winthrop
Carpenter, Lawrence H.	Attleboro
Carpenter, Richard H.	Fairhaven
Carrigan, Marc E., Jr.	Quincy
Cashman, Albert C.	East Milton
Charles, Joseph A.	Amesbury
Chase, Kenneth R.	Somerset
Close, Richard R.	Rye, New York
Cokkinos, Andrew	Malden
Conley, Stanley J. C.	Cambridge
Copeland, Charles M.	Lexington
Corcoran, Francis A., Jr.	Jamaica Plain
Cox, Everett F., Jr.	Hudson
Crowley, John A.	Wellesley
Cummings, Charles R., Jr.	South Braintree
Dabkowski, Joseph S.	New Britain, Connecticut
Danahy, James R.	Hopkinton

NAME	HOME ADDRESS
Datz, Maxwell W.	Mattapan
Davis, Frank J.	South Lincoln
Davis, William M.	Reading
Dewey, George W.	Winsted, Connecticut
Dexter, Eugene F.	Belmont
Di Franco, George	Somerville
Dumas, Leland B.	Medford
Dwyer, William T.	Belmont
Featherstone, Charles M.	Newton
Fiore, Anthony	Somerville
Flynn, W. Franklin	Concord, New Hampshire
Forman, Alfred	Roxbury
Freeman, Albert A.	Mattapan
Fuller, Frederick G.	Quincy
Gallagher, John J., Jr.	Peabody
Gardner, Francis W., Jr.	Middletown, Connecticut
Gardner, Robert E.	Winchester
Glasker, Louis	Brookline
Gleason, Walter P.	Winchester
Greenberg, Arthur B.	Lynn
Greene, Merrill H.	Dorchester
Grodsky, Morris	Chelsea
Hall, Bicknell, III	Wollaston
Hampton, William R.	Saugus
Hansis, Donald R.	Arlington
Harvie, E. Andrew	Grafton
Hatch, Harry B.	Wollaston
Heidel, Robert N.	Winchendon
Heller, Leon	Brookline
Hergstrom, Robert P.	New Britain, Connecticut
Higgins, Robert F.	Newton Highlands
Hill, Howard T.	Brockton
Hincks, Edward W., Jr.	Kents Hill, Maine
Hodgkins, George L.	Reading
Hoell, George R.	Medford
Hogan, Robert E.	Haverhill
Hulse, Miles L.	Needham
Hunter, Howard G.	Arlington
Hurley, William H.	Revere
Hutchins, Lyman M., Jr.	Newton
James, John A.	North Andover
Jennings, Edward W.	South Braintree
Jones, Clyde E.	South Weymouth
Keeffe, John	Woodstock, New Brunswick
Kenney, Charles P.	Somerville
Kenney, Peter J., Jr.	West Medway
Keyes, Norman A.	Boston
Klein, Herbert C.	Norwood
Knight, Lawrence E.	Somerville
Kugle, Frank S.	York, Pennsylvania
Landers, Robert G.	West Roxbury
Laramy, George S.	Brookline
Lawless, Joseph F.	Lynn
Levesque, George H.	Springfield
Levison, Malcolm B.	Brookline
Linnell, Donald J.	Winchester
Linsky, Leonard	Roxbury
Litvack, Leonard F.	Lynn
Locke, Dexter H.	Somerville



NAME	HOME ADDRESS
Lufkin, Richard W.	Gloucester
Lynch, Robert F.	Boston
Lynn, Melvin R.	Medford
MacDonald, Charles J.	Malden
MacKay, Donald	Lynn
MacKinnon, DeWitt N.	Hopkinton
MacLean, Arnold A.	Woburn
Maguire, James R., Jr.	Beverly
Manganelli, Francis C.	Cambridge
Mann, Paul	Brighton
Martin, Russell L.	Pittsfield, Maine
May, G. Walter	Tarrytown, New York
Mazmanian, Peter	Somerville
McArdle, Henry J.	Brighton
McGinn, Francis J.	Lynn
McKinnon, Roy A.	Brookline
McShane, Thomas J., Jr.	Watertown
Meisner, John B.	Dover-Foxcroft, Maine
Merdinger, George R.	Millington, New Jersey
Miller, Sumner D.	Malden
Montague, Robert J.	West Acton
Moody, Richard E.	Granby
Morey, Douglas W., Jr.	Medford
Morrison, Dean P.	Stoneham
Morrison, Lincoln W.	Andover
Morse, Donald M.	Wells, Maine
Moseley, Richard S.	Watertown
Mullen, Matthew J.	Brighton
Najjar, Nicholas L.	Boston
Nethercote, William F., Jr.	Waltham
Nimmo, James C.	Methuen
Nish, Harry T., Jr.	Saugus
Norris, Robert E.	Salem
O'Connell, Thomas F.	Dorchester
Ogden, Harold P.	Springvale, Maine
Olsen, Albert D.	Dorchester
Pajonas, Alphonse	Hartford, Connecticut
Pappas, James	Arlington
Peters, Irving H.	Newton Centre
Phillips, William H.	Somerville
Piche, William A.	Lancaster, New Hampshire
Pierce, Guy W.	Walpole
Pope, James H.	Braintree
Posovsky, Milton	Athol
Powers, William H.	Wakefield
Priest, Irving A.	Sudbury
Rice, Richard J.	Belmont
Richardson, George E., Jr.	Hopedale
Ricker, Paul J.	Needham
Robbins, Leroy F., Jr.	Hallowell, Maine
Robinson, Robert T.	Cochituate
Rodgers, Wilfrid C.	West Concord
Rosenthal, Bernard F.	Boston
Ross, Donald E.	North Quincy
Rothkopf, Herbert	Ellenville, New York
Rubin, Alvan D.	Brookline
Ryan, Edward F.	Woburn
Savage, George A.	Dorchester
Schober, Frank R.	Winthrop

NAME	HOME ADDRESS
Scopa, Michael P.	East Boston
Shirley, George C.	North Quincy
Simblist, Leo	Boston
Smith, Nelson	Concord
Sorenson, Andrew P., Jr.	Melrose
Sotir, Rachie G.	Roslindale
Sotiropoulos, Angelo	Newburyport
Sproul, Stanley E.	Augusta, Maine
Stahl, Walter F.	South Boston
Stearce, Edward, III	Newtonville
Stewart, John P., Jr.	Medford
Stone, Abraham A.	Chelsea
Sullivan, James W.	Dorchester
Sullivan, William P.	Newtonville
Sutton, Richard	Andover
Swan, Burton D.	Sturbridge
Tait, Harry H., Jr.	Medford
Thomas, Ralph H.	Belmont
Tobin, Richard J.	Dorchester
Todd, Frederick W.	Wollaston
Vahey, James T., Jr.	Watertown
Wadleigh, Richard F.	North Billerica
Washburn, James E.	Hudson, New York
Welch, Thomas S.	Newtonville
Weller, Herbert	Brookline
West, Kenneth P.	Boston
Weygand, William J.	Taunton
White, Joseph J.	Canton
Whitney, Ernest E., Jr.	Melrose
Widger, Walter L.	Beverly
Wilensky, Harry	Chelsea
Wilson, Harry S.	Saint John, New Brunswick
Winslow, John E.	Quincy
Wolff, Arthur G.	Allston
Wood, Herbert L.	Winchester
Woodruff, Dwight C., Jr.	Lunenburg
Woodworth, Stewart C., Jr.	Jamaica Plain

## COLLEGE OF BUSINESS ADMINISTRATION

### Upperclassmen

1938-1939

NAME	CLASS	HOME ADDRESS
Abrams, Nathan D.	1942	Revere
Adams, Leonard K.	1941	West Concord
Agocs, Stephen, Jr.	1941	Lynn
Anderson, Charles O.	1942	Watertown
Anderson, John W., Jr.	1939	Belmont
Andrews, Joseph P.	1942	Vineyard Haven
Antonelli, Pasquale	1939	Boston
Archibald, Willis K.	1942	Milford

NAME	CLASS	HOME ADDRESS
Bailey, Paul F.	1939	East Braintree
Baldasaro, John B.	1941	Newton
Barba, Robert E.	1942	Newton
Barbiero, Dominick O.	1942	Naugatuck, Connecticut
Bargar, Marshall	1942	Winthrop
Barnes, Leonard B.	1942	Waltham
Barney, Malcolm E.	1942	Boston
Barrasso, Ernest V.	1940	East Boston
Bartlett, Arnold S.	1941	Eliot, Maine
Baxter, John T.	1942	Waban
Beale, George W.	1940	Needham
Beaton, Joseph P.	1941	Dorchester
Berlowe, Alvin M.	1940	White Plains, New York
Bertasz, Michael E.	1941	Hinsdale, New Hampshire
Bouldry, William W.	1942	Rosindale
Brebner, James W.	1939	Jamaica Plain
Brierley, Kenneth	1942	Pawtucket, Rhode Island
Bromley, Vorman A.	1941	Granville, New York
Brown, Emery E.	1942	Waltham
Brown, Gordon H.	1942	Newton Centre
Brown, Knowlton	1942	Wellesley
Brown, Richard E.	1941	Lynn
Bukala, Jacob R.	1940	Lowell
Burt, Gardner L.	1939	Waltham
Callery, Edward C.	1942	Canton
Cannava, Santo J.	1940	Medford
Carleton, George T.	1942	Haverhill
Carpenter, William H.	1942	East Braintree
Carter, William N.	1942	West Somerville
Cassidy, Ellsworth S.	1491	Braintree
Caswell, John H.	1942	Ilion, New York
Charles, Willard C.	1941	Salisbury
Chase, Marcel E.	1939	Allston
Chase, W. Raymond	1941	Monument Beach
Childs, Fred L.	1941	Framingham
Clark, Aubrey E.	1942	Holbrook
Claypole, Arthur H., Jr.	1942	Waltham
Cobb, William J.	1942	Norwood
Cohan, George	1941	Malden
Connolly, George F.	1940	Boston
Cook, John L.	1941	Wellesley
Cooper, Joseph	1942	Dorchester
Copeland, Gordon E.	1941	Quincy
Corson, W. Bradley	1940	Rochester, New Hampshire
Cort, Robert	1942	Dorchester
Cronin, John J.	1941	Hyde Park
Crosby, Gardner	1939	Wollaston
Crowdis, George B.	1942	Wollaston
Cullen, James H.	1941	Boston
Cunningham, James L.	1942	Lincoln
Curran, Robert J.	1939	Lynn
Curtis, Donald L.	1942	Holliston
Cusick, Fred M.	1942	Brighton
Dacey, Edward F.	1942	Boston
D'Agata, Samuel J.	1941	Lawrence
Dagle, Arthur F.	1939	Dorchester
Daum, Arnold E.	1940	Roxbury
Davenport, Ralph H.	1941	Newton Centre
Davis, Arthur E.	1941	Norwood

NAME	CLASS	HOME ADDRESS
Davis, L. Burnham	1942	Greenwood
Dearstyne, Frederick J.	1940	Albany, New York
DeLuca, John H.	1942	Stamford, Connecticut
DiCara, Salvatore V.	1941	Dorchester
DiLorenzo, Carmen	1939	East Boston
Dinsmore, Paul E.	1942	Waltham
Donley, George W.	1942	Brewster, New York
Donlon, Stephen J.	1942	Swampscott
Drummond, David B.	1942	South Braintree
Dunn, Albert D.	1942	New Britain, Connecticut
Durgin, Bernard L., Jr.	1942	Haverhill
Else, James G., Jr.	1942	Melrose
Feinberg, Sidney L.	1941	Dorchester
Fielding, Robert J.	1939	Brighton
Figlioli, Aldo R.	1941	Meriden, Connecticut
Fishbone, Gus	1942	Yantic, Connecticut
Forte, Jack A.	1939	Noroton Heights, Connecticut
Freeman, Albin H.	1942	Worcester
Freeman, Zussman	1941	Roxbury
Frizzell, B. George	1940	Wakefield
Gallagher, Thomas C., Jr.	1941	South Acton
Garlick, Eugene H.	1942	Horseheads, New York
Gleason, Thomas L.	1941	Stratford, Connecticut
Goldsmith, Melvin A.	1941	Brookline
Goodman, Milton B.	1942	Dorchester
Goodwin, Theodore	1942	Framingham
Griffin, Gerald A.	1941	Medford
Grossbard, Saul	1942	Brookline
Hahn, Saul	1942	Roxbury
Hall, Lennard C.	1941	Arlington
Hannum, Arthur E.	1942	Northampton
Hansen, Arthur E.	1939	Bedford
Harding, Kenneth	1941	Wollaston
Harper, Arthur A.	1941	Wakefield
Hartwell, William J.	1939	Medford
Harwood, Robert C.	1941	North Bangor, New York
Hayes, Alfred B.	1942	Hyde Park
Hazelwood, Frank H.	1940	Mattapan
Hefron, Paul E.	1941	Brighton
Hennessey, Edward F.	1941	Newton
Hickey, Edward T.	1941	Newton Centre
Horan, John F.	1942	Brighton
Howard, Thomas E.	1942	Derry, New Hampshire
Ide, Warren M.	1942	Taunton
Irish, Alfred G.	1942	Falmouth
Johnson, Carl B.	1941	Belmont
Johnson, Carl H.	1941	Pawtucket, Rhode Island
Johnson, C. Harold	1941	Arlington
Johnson, Howard E.	1940	Maynard
Joslyn, Clyde F., Jr.	1939	Waltham
Josselyn, Calvin E.	1941	Wollaston
Killam, Edward R.	1941	Manchester
Kleemann, Harold C.	1939	Winthrop
Lancaster, Carl R.	1942	Newton Centre
Leadbetter, Roger A.	1942	Somerville
Lee, Frederick W.	1940	Nottingham, N. H.
Lente, Allen R.	1939	Brownville Jct., Maine
Lewis, Joseph E.	1942	Whitman
Libon, Bernard L.	1942	Roxbury

NAME	CLASS	HOME ADDRESS
Lindner, John D.	1940	Canandaigua, New York
Lofgren, Arne F.	1942	Hyde Park
Logan, John T.	1942	Waltham
Loiselle, Charles H.	1941	Springfield
Lomas, William W.	1942	Framingham
Lord, Donald H.	1941	Dover, New Hampshire
Lovequist, Edwin H.	1941	Waltham
MacMullan, Leslie H.	1941	Framingham
MacQuarrie, Wallace E.	1940	Brownville Junction, Maine
Martensen, Arthur O.	1939	Everett
Matheson, Frederick	1939	Somerville
Martin, Harry W.	1942	Brockton
Mason, Clifford O.	1941	Winchester
McAuley, Thomas M.	1941	West Concord
McCarthy, William T.	1940	Brighton
McCracken, James M., Jr.	1942	Needham
McLaren, John	1942	Cambridge
McNally, Robert D.	1942	Wellesley Hills
McPherson, William F.	1941	Hingham
McQuarrie, Harry A.	1942	Brownville Junction, Maine
McTernan, James	1941	Boston
Meissner, Edward G.	1939	Waban
Mello, William T.	1939	Cambridge
Michaelson, Eliot D.	1941	Dorchester
Millen, Curtis W.	1941	Quincy
Mis, Edward F.	1942	Warren, Rhode Island
Morgan, Harold D.	1941	Lexington
Morris, Howell G.	1941	Dedham
Morris, James A.	1941	Lawrence
Nelson, James H.	1942	Gloucester
Newton, Richard A.	1941	Sharon
Nutting, William C.	1942	Wellesley Hills
Ogonik, John	1942	Boston
Olsen, Walter F.	1942	Framingham
O'Neil, Frank B.	1941	Lynn
Parker, Everett N., Jr.	1942	Lewiston, Maine
Pass, Maurice A.	1940	Roxbury
Patterson, Charles R.	1942	Bridgeport, Connecticut
Paul, Ralph M.	1942	Squantum
Peppard, William S.	1941	Arlington
Polley, Walter E., Jr.	1942	North Chelmsford
Poltrino, Arthur E.	1942	Lynn
Prior, F. Weston	1942	Auburndale
Pritchard, Robert T.	1940	South Portland, Maine
Probst, Arthur E.	1941	West Roxbury
Reid, Robert F.	1942	Taunton
Ring, Frank A.	1942	Waltham
Rippere, George H.	1941	Waterbury, Connecticut
Roach, John E.	1942	Lynn
Robinson, Guy C.	1942	Medford
Robinson, William W.	1942	Lynn
Roblin, Irwin	1942	Dorchester
Rogers, Herbert J.	1942	Arlington
Ross, George A.	1942	Brighton
Rosselli, Anthony C.	1942	Somerville
Rowell, Allan M.	1942	Holden
Rumery, E. Stuart, Jr.	1941	Medford
Rumsey, Abraham H.	1942	Dorchester
Ryan, Francis W.	1939	Bennington, Vermont



NAME	CLASS	HOME ADDRESS
Sacknoff, Norman A.	1942	Brookline
Sandarg, Stanley	1941	Pittston, Pennsylvania
Seed, Douglas A.	1939	Salem Depot, New Hamp.
Sellers, Donald R.	1941	Watertown
Semenuk, Andrew	1942	Everett
Semonian, Ralph G.	1942	Brighton
Shaw, Stanley C.	1939	West Roxbury
Shea, R. Brendan	1941	South Groveland
Sherr, Earle	1942	Canton
Short, Dean F.	1942	Taunton
Sibley, Richard A.	1941	Fitchburg
Skambas, George E.	1942	Roxbury
Skelly, Thomas F.	1942	Danbury, Connecticut
Skiff, C. Lorin	1940	Walton, New York
Slade, Robert C.	1940	Belmont
Smith, Arthur T.	1942	Newton
Smith, B. Shaw	1941	Waltham
Smith, Clifford A., Jr.	1939	Dedham
Smith, Everett C.	1942	Melrose
Smookler, Jack J.	1942	Boston
Sprowl, Edward M.	1942	South Natick
Steeves, Clifford R.	1940	Needham Heights
Stepasiuk, John	1941	Malden
Struzziero, Alexander J.	1941	East Boston
Swardlick, Samuel	1941	Canton
Tavilla, Paul	1940	Everett
Taylor, Edward S.	1942	Wellesley
Taylor, William I.	1942	Fitchburg
Tebbetts, Stanley R.	1940	Lexington
Telowetski, John	1941	Delanson, New York
Thomas, William H.	1941	North Quincy
Tongue, Charles H.	1942	Brightwaters, New York
Toscano, George J.	1939	Lawrence
Tracy, Linwood W., Jr.	1939	Boston
Tubbs, Ronald E.	1942	West Hartford, Connecticut
Turton, Hallam W., Jr.	1941	Athol
Uhland, Laurence S.	1941	Bridgeton, New Jersey
Urbanik, Walter C. F.	1942	Dorchester
Vickery, Ralph L.	1942	Brighton
Ward, Charles F.	1942	Indian Orchard
Weiderhorn, Morris	1940	Mattapan
Wennberg, Norman A.	1941	Quincy
Westdahl, Richard E.	1939	White Plains, New York
Wilcox, Alfred R.	1941	Oneco, Connecticut
Wilder, Roger C.	1942	Melrose
Williams, Edward P.	1939	Dorchester
Williams, Herbert C., Jr.	1942	Cohasset
Williams, Matt O.	1942	Ilion, New York
Wilson, Allan C.	1939	Roslindale
Wolf, John M.	1942	Greenwich, Connecticut
Wolff, Herbert K.	1939	Allston
Wolfson, Jason L.	1942	Brighton
Woodbury, Edgar H.	1942	Littleton
Wright, Russell C.	1942	Melrose
Young, Henry C.	1939	Whitman

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OFFICE HOURS  
DEPARTMENT OF ADMISSIONS  
9 A.M. to 4 P.M. daily  
Saturday 12.00 N'N  
Wednesday Evenings by  
Appointment

# Northeastern University

College of Business Administration

Paste a Small  
Photo or  
Snapshot  
in This Space

## APPLICATION FOR ADMISSION

(A non-returnable fee of five dollars must accompany this application. Make checks, money orders, or drafts payable to Northeastern University)

Boston, Mass. .... 19

To Director of Admissions:

I (Name in full) .....  
hereby respectfully apply for admission to the College of Business  
Administration to major in the field checked:

- ☐ Accounting  
☐ Banking and Finance  
☐ Business Management

for the school period beginning ..... 19....

NOTE: The applicant should fill out the following form (both sides) with care.

Residence ..... Street  
Town or City .....  
State ..... Tel .....  
Date of Birth ..... Age .....  
Place of Birth .....  
Race ..... Religion ..... Nationality .....  
Graduate of ..... High School, Year .....  
Location of High School .....  
Name of Principal .....  
Other high schools you have attended .....  
Names of Principals .....  
If not a graduate, state the years of attendance and why you left .....  
.....  
Father's, Mother's, or Guardian's Name .....  
.....  
Address .....  
Father's work, business or profession .....  
Names and addresses of two other persons, to whom we may direct in-  
quiries concerning you.  
.....  
.....

Weight.....Height.....

Have you any physical infirmities? Explain, if any.....

.....

.....

.....

.....

Defects of speech.....

Defects of hearing.....

Defects of sight.....

Bodily infirmities.....

Is your general health good, fair, or poor?.....

Have you done collegiate work elsewhere?.....

If so, name and address of college or university.....

.....

.....

Name of person who will furnish transcript of your college record.....

.....

Do you expect advance credit for past collegiate work?.....

.....

List all athletics and other extra curricula high school activities you

have engaged in.....

.....

.....

Names and addresses of all past employers with brief description of

each job, length of employment, and wages received:.....

.....

.....

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.....

*Date*.....

*Milton J. Schlagenhauf, Director of Admissions  
Northeastern University  
360 Huntington Avenue  
Boston, Mass.*

*Dear Sir:*

*Please send me additional information on the following points:*

.....

.....

.....

.....

.....

.....

.....

.....

*Name*.....

*Street and Number*.....

*Town or City*.....

*State*.....



# NORTHEASTERN UNIVERSITY

## COLLEGE OF LIBERAL ARTS

Offers a broad program of college subjects serving as a foundation for the understanding of modern culture, social relations, and technical achievement. Varied opportunities available for vocational specialization. Degree: Bachelor of Science or Bachelor of Arts.

## COLLEGE OF ENGINEERING

Offers curricula in Civil, Mechanical (with Diesel, Air Conditioning, and Aeronautical options), Electrical, Chemical, Industrial Engineering, and Engineering Administration. Classroom study is supplemented by experiment and research in well-equipped laboratories. Degree: Bachelor of Science in the professional field of specialization.

## COLLEGE OF BUSINESS ADMINISTRATION

Offers three curricula: Accounting, Banking and Finance, and Business Management. Each curriculum represents in itself a broad survey of business technique, differing from the others chiefly in emphasis. Degree: Bachelor of Science in Business Administration.

---

## SCHOOL OF LAW

Offers day and evening undergraduate programs admitting those who present a minimum of two years of college work, each program leading to the degree of Bachelor of Laws. Also graduate program in the evening leading to the degree of Master of Laws. Co-educational.

## SCHOOL OF BUSINESS

Offers curricula through evening classes in Accounting, Management, Law and Business Management, and Engineering and Business leading to the degree of Bachelor of Business Administration in specified fields or the Bachelor of Commercial Science in Law and Business Management. Preparation for C.P.A. Examinations. Shorter programs may be arranged. Co-educational.

## PRE-LEGAL PROGRAM

Offers in connection with the College of Liberal Arts special day and evening programs providing the equivalent of two years of college work and preparing for admission to the undergraduate programs of the School of Law. Co-educational in the evening.

---

The Colleges of Liberal Arts, Engineering, and Business Administration offer day programs for men only and are conducted on the co-operative plan. After the freshman year students may alternate their periods of study with periods of work in the employ of business or industrial concerns at ten-week intervals. Under this plan they gain valuable experience and earn a large part of their college expenses.

---

In addition to the above schools the University has affiliated with it and conducts: the Lincoln Technical Institute offering, through evening classes, courses of junior college grade in various fields of engineering; and the Lincoln Preparatory School, an evening school preparing for college entrance and offering other standard high school programs.

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For further information regarding any of the above schools, address

NORTHEASTERN UNIVERSITY  
360 Huntington Avenue, Boston, Massachusetts  
Telephone: KENmore 5800





# NORTHEASTERN UNIVERSITY

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## SCHOOL OF LAW

DAY AND EVENING PROGRAMS



1939 : 1940

FORTY-SECOND YEAR

*Admits Men and Women*

BOSTON

MASSACHUSETTS

## OFFICE HOURS

JUNE 20, 1939 — AUGUST 15, 1939

Daily (except Saturdays and Sundays) 9:00 A.M.-4:00 P.M.  
Saturdays, 9:00 A.M.-12:00 M.

AUGUST 16, 1939 — JUNE 19, 1940

Daily (except Saturdays and Sundays) 8:45 A.M.-9:30 P.M.  
Saturdays, 8:45 A.M.-1:00 P.M.

During September, the Office is open all day Saturday.

The General Offices of the University are open from 9:00 A.M. to 9:00 P.M.  
the entire year.

## LIBRARY HOURS

JULY 3 — SEPTEMBER 4, 1939

Daily (except Saturdays and Sundays) 9:00 A.M.-4:00 P.M.  
Saturdays, 9:00 A.M.-12:00 M.

SEPTEMBER 5, 1939 — JULY 1, 1940

Daily (except Sundays) 8:45 A.M.-10:00 P.M.

Sundays, 2:00 P.M.-6:00 P.M.

Holidays, 12:00 M.-6:00 P.M.

COMMUNICATIONS SHOULD BE ADDRESSED TO

**NORTHEASTERN UNIVERSITY**

SCHOOL OF LAW

47 MT. VERNON ST., BOSTON, MASS.

TELEPHONE KENMORE 5800

NORTHEASTERN UNIVERSITY

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The Forty-second Annual Catalogue  
*of the*  
School of Law

THREE-YEAR DAY PROGRAM  
FOUR-YEAR EVENING PROGRAM  
EACH PROGRAM LEADS TO THE LL.B. DEGREE

1939-1940



[ *Case Method of Instruction* ]  
[ *High Scholastic Standards* ]  
[ *Sound Professional Ideals* ]

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# CALENDAR

## DAY CLASSES

1939-1940

### FIRST SEMESTER

1939

18 Sept.	Monday	Registration begins.
25 Sept.	Monday	Class lectures begin.
12 Oct.	Thursday	Legal holiday (classes omitted).
20 Nov.	Monday	Payment of second installment of tuition due.
29 Nov.	Wednesday	1:10 P.M. Thanksgiving recess begins.
4 Dec.	Monday	9 A.M. Classes resumed.
22 Dec.	Friday	4 P.M. Christmas recess begins.

1940

2 Jan.	Tuesday	9 A.M. Classes resumed.
29 Jan.—2 Feb.		First semester examinations.

### SECOND SEMESTER

1940

5 Feb.	Monday	9 A.M. Class lectures begin.
5 Feb.	Monday	Payment of third installment of tuition due.
22 Feb.	Thursday	Legal holiday (classes omitted).
25 March	Monday	Payment of final installment of tuition due.
29 March	Friday	1:10 P.M. Spring vacation begins.
8 April	Monday	9 A.M. Classes resumed.
19 April	Friday	Legal holiday (classes omitted).
27 May—6 June		Final examinations.

## EVENING CLASSES

1939-1940

1939

6 Sept.	Wednesday	Junior and Sophomore class lectures begin.
7 Sept.	Thursday	Senior class lectures begin.
25 Sept.—12 Oct.		Make-up examinations.
25 Sept.	Monday	Freshman class lectures begin.
12 Oct.	Thursday	Legal holiday (classes omitted).
20 Nov.	Monday	Payment of second installment of tuition due.
30 Nov.	Thursday	Legal holiday (classes omitted).
22 Dec.	Friday	Last class lectures before the Christmas recess.

1940

2 Jan.	Tuesday	First class lectures following the Christmas recess.
29 Jan.	Monday	Payment of third installment of tuition due.
22 Feb.	Thursday	Legal holiday (classes omitted).
25 March	Monday	Payment of final installment of tuition due.
19 April	Friday	Legal holiday (classes omitted).
30 May	Thursday	Legal holiday (classes omitted).
16 June	Sunday	Baccalaureate Address.
19 June	Wednesday	Commencement.

## THE NORTHEASTERN UNIVERSITY CORPORATION

ROBERT GRAY DODGE  
*Chairman*

FRANK LINCOLN RICHARDSON  
*Vice-Chairman*

FRANK PALMER SPEARE  
*President of the University*

GALEN DAVID LIGHT  
*Secretary and Treasurer*

CHARLES FRANCIS ADAMS	MAYNARD HUTCHINSON
WILMAN EDWARD ADAMS	ARTHUR STODDARD JOHNSON
ROGER AMORY	HENRY CAMPBELL JONES, JR.
EARL D. BABST	HALFDAN LEE
ROBERT BALDWIN	EDWARD ABBOTT MACMASTER
ARTHUR ATWOOD BALLANTINE	JOHN RUSSELL MACOMBER
GEORGE LOUIS BARNES	JOSEPH PATRICK MANNING
THOMAS PRINCE BEAL	HAROLD FRANCIS MASON
FARWELL GREGG BEMIS	HUGH DEAN McLELLAN
PAUL CODMAN CABOT	IRVING EDWIN MOULTROP
WALTER CHANNING	CLARENCE LUCIAN NEWTON
WILLIAM CONVERSE CHICK	OLAF OLSEN
EVERETT AVERY CHURCHILL	AUGUSTIN HAMILTON PARKER, JR.
PAUL FOSTER CLARK	GEORGE EDWIN PIERCE
SEARS B. CONDIT	ROGER PIERCE
ALBERT NORTON CREIGHTON	MATTHEW POROSKY
WILLIAM JAMES DAVIDSON	FREDERICK SANFORD PRATT
JAMES DEAN	HARRY WENDELL PROUT
HENRY STURGIS DENNISON	SIDNEY RABINOVITZ
PAUL AUGUSTUS DRAPER	STUART CRAIG RAND
CHARLES FRANCIS EATON	JAMES LORIN RICHARDS
CARL STEPHENS ELL	CHARLES MILTON ROGERSON
JOSEPH BUELL ELY	ROBERT BILLINGS RUGG
TIMOTHY JAMES FALVEY	LEVERETT SALTONSTALL
FREDERIC HAROLD FAY	RUSSELL HENRY STAFFORD
ALLAN FORBES	FRANCIS ROBERT CARNEGIE STEELE
EDWARD J. FROST	CHARLES STETSON
FRANKLIN WILE GANSE	ROBERT TREAT PAINE STORER
GEORGE PEABODY GARDNER, JR.	FRANK HORACE STUART
HARVEY DOW GIBSON	EDWARD WATSON SUPPLE
MERRILL GRISWOLD	JOHN EDWIN TOULMIN
HENRY INGRAHAM HARRIMAN	BAYARD TUCKERMAN, JR.
CHANDLER HOVEY	ELIOT WADSWORTH
HOWARD MUNSON HUBBARD	EDWIN SIBLEY WEBSTER

## THE EXECUTIVE COUNCIL

FRANK PALMER SPEARE, M.H., LL.D., *President of the University*

GALEN DAVID LIGHT, A.B., *Secretary and Treasurer of the University*

CARL STEPHENS ELL, A.B., M.S., ED.M., SC.D., *Vice-President of the University*

EVERETT AVERY CHURCHILL, A.B., ED.D., *Vice-President of the University*

# NORTHEASTERN UNIVERSITY

## PURPOSE AND PROGRAM

**N**ORTHEASTERN University from the outset has been developed around the simple yet practical purpose of meeting human needs in distinctive and serviceable ways, maintaining flexibility in program and organization in order that constant adjustment could be made to changing needs.

Pursuant to this purpose, the University has evolved a definite plan of education which embraces primarily Co-operative Education by day and Adult Education by night. So far as the New England States are concerned, Northeastern University is the only institution whose day colleges, other than the School of Law, are conducted under the Co-operative Plan. The several schools and programs of the University are operated either under the name "Northeastern University" or by its affiliated schools, the Lincoln Schools, and The Huntington Day School for Boys. The following is a brief outline of the principal types of educational opportunities offered.

1. In the field of Co-operative Education there are three day colleges — the College of Liberal Arts, the College of Engineering, and the College of Business Administration. All of these colleges offer five-year curricula. The College of Liberal Arts offers majors in the usual fields of the arts and the sciences leading to the degrees of Bachelor of Arts and Bachelor of Science. The College of Engineering, one of the largest engineering colleges in the United States, has curricula in Civil, Mechanical (with Diesel, Air-Conditioning, and Aeronautical options), Electrical, Chemical, and Industrial Engineering. The College of Business Administration has curricula in Accounting, Banking and Finance, and Business Management. The College of Engineering and the College of Business Administration confer the degree of Bachelor of Science with specification indicating the field of specialization. The Co-operative Plan under which all of these day colleges operate enables the student to alternate regular periods of classroom instruction with supervised employment in an industrial or commercial position, thus combining theory and practice in an exceedingly effective manner. Apart from the educational advantages of the Co-operative Plan is the opportunity for self-support while the student is pursuing his studies at Northeastern University. During the co-operative periods, students not only gain experience but are also paid for their services. Approximately three hundred business and industrial concerns co-operate with Northeastern University in making this program effective.
2. The School of Law conducts both a day and an evening undergraduate program which prepares for admission to the bar and for the practice of the law and leads to the degree of Bachelor of Laws.

It also conducts a graduate program in the evening leading to the degree of Master of Laws.

3. The Adult Education Program has been developed in the evening work of the School of Law as indicated above, in the School of Business, and in the Evening Division of the College of Liberal Arts. The School of Business has curricula in Management, Accounting, Law and Business Management, and Engineering and Business. The School awards the Bachelor of Business Administration degree with specification and the Bachelor of Commercial Science degree in Law and Business Management. The Evening Division of the College of Liberal Arts offers an evening program the equivalent in hours to two years of college work, providing a general education and preparation for admission to the School of Law. The title of Associate in Arts is conferred upon those who complete this program.
4. In order that larger groups of men and women might be served through its evening schools, Northeastern University operates divisions of the School of Law and the School of Business in co-operation with the Young Men's Christian Association in Worcester and Springfield and of the School of Business in co-operation with the Providence Young Men's Christian Association. With the establishment of the divisions thoroughgoing methods of supervision were instituted and have been consistently followed and improved, with the result that the divisional work is conducted upon a highly efficient basis.
5. The Adult Education Program has also been developed through the Lincoln Schools, which are affiliated with and conducted by Northeastern University. The classes in these schools are held at convenient evening hours. The Lincoln Technical Institute offers curricula upon a junior college level in various phases of engineering leading to the title of Associate in Engineering; whereas the Lincoln Preparatory School, accredited by the New England College Entrance Certificate Board, prepares students for admission to college and offers other standard high school programs.
6. The Huntington Day School for Boys, also affiliated with and conducted by Northeastern University, is the outgrowth of a demand in the city of Boston for an urban preparatory school with high educational standards which would furnish thorough preparation for admission to the leading colleges and universities. While easily accessible to the various sections of Boston and to the suburbs, it has the facilities of a country day school and offers a country day school program. This School is one of the leading preparatory schools of the country.

## ORGANIZATION

Northeastern University is incorporated as a philanthropic Institution under the General Laws of Massachusetts. The State Legislature, by

special enactment, has given the University general degree granting powers.

The Corporation of Northeastern University consists of men who occupy responsible positions in business and the professions. This Corporation elects from its membership a Board of Trustees in whom the control of the institution is vested. The Board of Trustees has four standing committees: (a) an Executive Committee which serves as an Ad Interim committee between the regular meetings of the Board of Trustees and has general supervision of the financial and educational policies of the University; (b) a Committee on Housing which has general supervision over the buildings and equipment of the University; (c) a Committee on Funds and Investments which has the responsibility of administering the funds of the University; (d) a Development Committee which is concerned with furthering the development plans of the University.

The Board of Trustees has also created, through its by-laws, an Executive Council, consisting of the President, the Secretary, and the two Vice-Presidents of the University. To the Executive Council the Board has allocated broad powers.

## NORTHEASTERN UNIVERSITY AND AFFILIATED SCHOOLS

### STATISTICAL SUMMARY

1937-1938

	Administrative Officers of Faculty	Students
I. General Administration	8	
II. Northeastern University		
College of Liberal Arts	79	1905
College of Engineering		
College of Business Administration		
School of Law		
School of Business		
	46*	1949*
	101*	1531*
III. Schools affiliated with and conducted by Northeastern University		
Lincoln Schools	52	1048
Huntington Day School for Boys		
Regular Term	16	197
Summer Term	9	122
	—	—
Total	311	6752
Less Duplicates	39	460
	—	—
Net Total	272	6292

\*These figures include the administrative officers, faculties and students of the Divisions of the University in Worcester, Springfield and Providence.



## SCHOOL OF LAW

### ADMINISTRATIVE STAFF

- FRANK PALMER SPEARE, M.H., LL.D., *President of the University*  
EVERETT AVERY CHURCHILL, A.B., Ed.D., *Vice-President of the University*  
GALEN DAVID LIGHT, A.B., *Secretary and Treasurer of the University*  
SYDNEY KENNETH SKOLFIELD, A.B., B.R.E., LL.B., *Dean*  
EDNA ETHEL RAWNSLEY, *Registrar and Secretary to the Dean*  
FLORENCE ADA LANE, B.S., *Librarian*  
ISABEL CRAIG RAMSAY, *Recorder and Bookkeeper*  
ELIN VICTORIA PETERSON, *Secretary to the Vice-President*  
MARY B. FOOR, *Manager of the University Bookstore*
- 

### FACULTY

- FELIX FORTE, A.M., LL.M., S.J.D.  
*Professor of Law*  
EDWIN WILSON HADLEY, A.B., J.D., LL.M.  
*Professor of Law*  
SYDNEY KENNETH SKOLFIELD, A.B., B.R.E., LL.B.  
*Dean and Professor of Law*  
MELVILLE FORREST ROGERS, LL.M.  
*Associate Professor of Law*  
CHARLES FREDERICK FRASER, A.M., LL.M.  
*Assistant Professor of Law*  
DONALD ROBERT SIMPSON, A.B., LL.B.  
*Assistant Professor of Law*  
OSCAR STORER, A.B., LL.B.  
*Assistant Professor of Law*  
CHALMERS ADDISON PEAIRS, JR., M.A., LL.B.  
*Instructor in Law*
- 

- ARTHUR WILLIS BLACKMAN, B.A., LL.B.  
*Lecturer in Equity*  
ROBERT RAYMOND ELLIOTT, B.S., LL.B.  
*Lecturer in Criminal Law*  
ELIAS FIELD, A.B., LL.B.  
*Lecturer in Real Property*  
DANA TAYLOR GALLUP, A.M., LL.B.  
*Lecturer in Landlord and Tenant, and Taxation*  
HAROLD PENDEXTER JOHNSON, A.B., LL.B.  
*Lecturer in Mortgages, and Future Interests*

- RICHARD HENRY LEE, A.B., LL.B.  
*Lecturer in Sales*
- STUART MACMILLAN, Ph.B., LL.B.  
*Lecturer in Conflict of Laws*
- WILLIAM MACY MARVEL, A.B., LL.B.  
*Lecturer in Wills*
- LEON BETTONEY NEWMAN, A.B., LL.B.  
*Lecturer in Massachusetts Practice*
- HIBBARD RICHTER, A.B., LL.B.  
*Lecturer in Constitutional Law*
- MAYO ADAMS SHATTUCK, A.B., LL.B.  
*Lecturer in Trusts*
- JOHN VARNUM SPALDING, A.B., LL.B.  
*Lecturer in Evidence*
- DWIGHT MERRILL ALDEN, A.B., LL.B.  
*Counsellor to Students*
- EMMA FALL SCHOFIELD, A.B., LL.M.  
*Counsellor to Women Students*
- 

#### FACULTY COMMITTEE ON ADMINISTRATION

EVERETT AVERY CHURCHILL, *Chairman*

SYDNEY KENNETH SKOLFIELD, *Dean*

OSCAR STORER

CHARLES FREDERICK FRASER

ROBERT RAYMOND ELLIOTT

MELVILLE FORREST ROGERS

## HISTORICAL

**N**ORTHEASTERN University School of Law was established in 1898 with the cooperation of the Honorable James R. Dunbar, Professor James Barr Ames, then Dean of the Harvard University School of Law, and Samuel Bennett, then Dean of Boston University School of Law. Later such men as Ezra Thayer, Dean of Harvard University School of Law, Samuel Elder, and Robert G. Dodge were active upon the Corporation of the school and were largely instrumental in shaping its policies and its development. The school has had over the years an unusual faculty of men who have been outstanding leaders in the profession. It has also enjoyed highly favorable recognition and endorsement by the bench and by the bar. The growth and influence of the school has been marked. Its graduates who have entered the practice of the law are men of high professional attainment. Many of the alumni occupy positions of leadership as executives in various fields of business.

With the occupancy of the new Law School Building at 47 Mt. Vernon Street it seemed to the Trustees that the time had come to establish a day school, while at the same time continuing its Evening Law School. Accordingly, definite action was taken whereby Northeastern University opened a Day Law School, entering its first freshman class in September 1938. The Trustees and officers of administration have put into effect such educational policies as will insure the Law School's maintaining, both in its day and evening programs, those standards which are in accord with the requirements of the standard accrediting associations for professional education in the field of the law. Through its day and evening undergraduate program leading to the Bachelor of Laws degree, and through its graduate program leading to the Master of Laws degree, the School of Law extends its services to a wide group of students who earnestly desire an effective preparation for the practice of the law, or who feel that a knowledge of the law is an effective means to successful executive work in business.

## LOCATION OF UNIVERSITY BUILDINGS

Northeastern University is located in Boston, a city which is rich in education and cultural opportunities. The University center is on Huntington Avenue just beyond Massachusetts Avenue and opposite the Boston Opera House. Here on a six and one-half acre campus are located the educational buildings of the University except that of the School of Law. The classes of the School of Law are all held in the Law School Building at 47 Mt. Vernon Street.

## WEST BUILDING

The West Building at 360 Huntington Avenue contains over one hundred thousand square feet of floor space devoted to administrative and instructional purposes. On the first floor are the general administrative offices of the University. The University Bookstore, the "Husky Hut," and the student checkroom are located in the basement. There

are three large lecture halls and numerous classrooms and laboratories. The office of the Evening Division of the College of Liberal Arts is located on the first floor of this building.

### **EAST BUILDING**

The East Building of the University is the educational wing of the Huntington Avenue Branch of the Boston Young Men's Christian Association. The general University library, classrooms, certain laboratories and the gymnasium are located in this building.

### **SOUTH BUILDING**

The South Building of the University contains certain laboratories, a large lecture hall, and several classrooms.

### **LAW SCHOOL BUILDING**

The Law School Building is located at 47 Mt. Vernon Street within a few minutes' walk from the State House and from the Court House, where the Supreme Judicial Court, the Superior Court for Suffolk County, the Land Court, the Probate Court for Suffolk County, and the Municipal Court for the City of Boston are housed. The Building, occupied exclusively by the Law School, has excellent classroom facilities, adequate library areas, and administrative and instructional offices. Opportunities are provided for study, effective use of the library, and contacts with the faculty outside the classroom.

## **THE LAW CURRICULA**

**Three-Year Day Course.** The completion of the course of study leading to the LL.B. degree in the day curriculum requires that students shall be in regular attendance for three full school years and shall devote substantially all of their working hours to their law studies. A minimum of eighty-two semester hours of classroom instruction is required during the three-year period.

**Four-Year Evening Course.** The evening law school course leading to the LL.B. degree covers a period of four school years of thirty-six weeks each and is equivalent in content and the number of classroom hours to the day program. The evening program is basically for those who are regularly employed during the day and can attend only the evening sessions of the School.

**Master's Course.** The program for the LL.M. degree is two years in length. The instruction is designed to encourage students and active practitioners of the law to continue their law study after receiving the degree of Bachelor of Laws, so as to equip themselves for more effective professional work and for greater contribution to the administration of justice as members of the bar, as legislators, or in other forms of public service, and to encourage investigations directed toward a better understanding and improvement of the law, both in its substance and in its application. The Master's Courses are all offered in the evening.

## METHOD OF INSTRUCTION

The primary purpose of the School is to prepare for the practice of the law wherever the English common law system prevails, particular attention being given to the law of Massachusetts and the other New England states. To accomplish this aim, the instruction is designed to train the students in the fundamental principles of the common law and to develop their powers of legal reasoning and analysis. The instruction is based on the case method combining the study of basic principles with the analysis and interpretation of decided cases. Such analysis and discrimination constitutes a large portion of the work of a lawyer in his active practice. No knowledge of principles acquired wholly apart from the facts upon which they arise can replace the practical values which come from the actual dissection and analysis of cases by the student in his study or with the instructors in the classroom. Furthermore the knowledge of the law and the understanding of the growth and development of the law, which the student acquires through the case system, gives him a basis upon which to build as the law grows.

The case method of instruction as used at Northeastern, based on the preparation of assigned cases in advance of the class period, develops an interest and enthusiasm for the law which is not found under other than the case method, and, which is more important, develops that soundness of legal reasoning and knowledge of the law so essential to success at the bar.



## ADMISSION OF STUDENTS

An application blank for admission will be furnished by the Registrar of the Law School upon request. All applicants for admission must fill out and file this form together with (1) an official certificate of the college work completed, (2) a letter of reference concerning character and ability. It is advisable that the matter of admission be settled in advance of the opening of school. The necessary application for admission and other credentials required should be filed as far in advance of the registration period as possible.

**Candidates for the Degree of Bachelor of Laws.** The requirements for admission apply to students enrolling either for the day or the evening law school curriculum. Women are admitted to the School of Law under the same conditions as men.

An applicant for admission as a candidate for the degree of Bachelor of Laws must, at the time of admission and prior to the commencement of his law study, have completed satisfactorily, at least one-half of the work required and acceptable for the Bachelor's degree in a college or university approved by the Committee on Administration.

Applicants must also be of good moral character.

**Advanced Standing.** A student who has complied with the entrance requirements for regular first-year law students prior to beginning his law study and who has successfully completed one or more years of work in a law school of approved standing may, upon the presentation of a certificate of scholarship and of honorable dismissal from such school, be admitted to advanced standing to the extent and on such conditions as the full-time faculty may prescribe. No applicant will be admitted, either as a candidate for advanced standing or for admission to the first-year class, who shall have previously attended another law school and who can not return to that school in good standing.

**Special Students.** A limited number of applicants, who are at least twenty-three years of age and who can not qualify under the foregoing requirements for admission as candidates for the degree of Bachelor of Laws, may, in exceptional cases and at the discretion of the full-time faculty, be admitted as special students. Applicants for admission as special students must give evidence of such general education and experience as will enable them to carry on and profit by the work of the school. Special students may not be candidates for a degree in the School of Law.

**Re-Admission.** Former students who have not been registered in the School during the two school years immediately preceding that in which they seek re-admission to the School will be re-admitted only at the discretion of the full-time faculty and under such conditions as the faculty may prescribe in each instance.

**Graduate Courses.** Any person who has satisfactorily completed such pre-legal work as will entitle him to admission to this school as a candidate for the LL.B. degree, and subsequent to such pre-legal study has received the degree of LL.B., or an equivalent degree, from an approved school of law, may, at the discretion of the Dean, be admitted to the Master's course as a candidate for the degree of Master of Laws (LL.M.).

One who meets the requirements for admission as a candidate for the LL.M. degree, and who desires a knowledge of particular courses because of their relation to his practice or other reasons, but not intending to pursue the entire program, may enroll for individual courses.

## THE COURSES OF INSTRUCTION

The University reserves the right to withdraw, modify or add to the courses offered, or to change the order of courses as may seem advisable.

### UNDERGRADUATE COURSES

#### AGENCY.

#### 2 SEMESTER HOURS.

Agency defined; actual or ostensible; agency distinguished from trust, from sale, from lease; creation of the relation; scope of agency; authority and power of agent, manner of execution of authority; effect of relations as between principal and agent, between agent and third persons, and between principal and third persons; liability of principal for acts of agent; liability and rights by ratification; delegation of authority; duties and liabilities of the agent to third persons, to principal; undisclosed principal; duration and termination of relation. *Mechem's Cases on Agency* (2d ed.).

#### BANKRUPTCY.

#### 2 SEMESTER HOURS.

The course will cover the history of bankruptcy legislation, state and national; extent and operation of state insolvency laws; who may become a bankrupt; who may be petitioning creditors; acts of bankruptcy, including fraudulent conveyances, preferences and assignments for the benefit of creditors; what property passes to the trustee; dissolution of liens; what claims are provable against the bankrupt's estate; duties and powers of the trustee; duties of the bankrupt; discharge from bankruptcy; compositions in the bankruptcy court; bankruptcy procedure.

#### BILLS AND NOTES.

#### 3 SEMESTER HOURS.

The provisions of the General Laws of Massachusetts, Chapter 107 — Negotiable Instruments Law (in Massachusetts only). Formal requisites of negotiable and non-negotiable bills of exchange, checks and notes; obligations and rights of the various parties to such instruments, makers, acceptors, drawers, drawees, payees, indorsers and indorsees; suits upon bills and notes; pleading and defenses, accommodation paper, bankers' and trade acceptances; letters of credit; guaranty and generally of the transfer, negotiation and extinguishment of bills and notes. *Aigler's Cases on Negotiable Paper and Banking*.

#### BUSINESS ASSOCIATIONS.

#### 6 SEMESTER HOURS.

I, The nature of a corporation; II, Intra corporate problems, voting control, management, stockholders' rights, control by managers, securities; III, Inter corporate problems, powers of corporations, unauthorized corporate action, ultra vires, rights of creditors, reorganization.

Embracing the creation of partnership; rights and duties of partners among themselves; power of partners to bind firm; individual liability of partners; dissolution. *Canfield and Wormser's Cases on Private Corporations* (3d ed.).

#### COMMON LAW PLEADING.

#### 2 SEMESTER HOURS.

The Case Method of law instruction, its origin and a comparison of it with other methods of instruction; the sources of our law; constitutions, common law and statutes; distinctions between law and equity; divisions of the law, civil, criminal and otherwise; adjective law and substantive law; the common law, its origin and underlying principles; the doctrine of *stare decisis*; the relative value of textbooks, casebooks, digest and the reports; how to read and abstract a case; differentiation between decision and dicta; imperative and persuasive authorities. Procedure from the original writ to appeal and review of judgment; how a right may be enforced and a remedy obtained in the courts; venue of actions; forms of actions, local and transitory, real, personal and mixed; original and judicial writs; pleadings, their necessity, uses, forms and rules by which they are governed; the effect of pleadings in conduct and results of the trial; protection of rights of the parties before, during and after trial, and before and after judgment; revision of proceeding, exceptions, appeal and review. *Keigwin's Cases on Common Law Pleading* (2d ed.).

**CONFLICT OF LAWS.****4 SEMESTER HOURS.**

General background and theoretical bases of Conflict of Laws and rules for the application of Conflict of Laws principles; general requirements of domicile; domicile by operation of law; definition and character of jurisdiction; jurisdiction of courts; a consideration of various problems of family law with emphasis on marriage, divorce, legitimacy and adoption; property interests including movables and immovables; intangibles and matrimonial property interests; torts; contracts and related obligations including foreign judgments and other imposed duties; procedural matters; and administration of estates, trusts and receiverships. Cheatham, Dowling, and Goodrich, *Cases on Conflict of Laws*, with supplement.

**CONSTITUTIONAL LAW.****4 SEMESTER HOURS.**

Written and unwritten constitutions; history and sources of written constitutions in the United States, state and national; establishing and amending constitutions; distribution of powers between the national and state governments; distribution of powers among the three departments; the judicial department; nature of judicial power; jurisdiction of the federal government, criminal and civil; express, implied, resulting and inherent powers; functions of administrative officers; citizenship; civil and political rights; the police power; the right of eminent domain; taxation; impairment of contracts, *ex post facto* and retrospective legislation generally, regulation of commerce. Long's *Cases on Constitutional Law* (3d ed.).

**CONTRACTS.****6 SEMESTER HOURS.**

Offer and acceptance; consideration; performance of, or promise to perform, an existing legal obligation as consideration; moral obligation as consideration; past or executed consideration; parties to a contract, including aliens, executors and administrators, guardians, infants, insane persons, intoxicated persons and married women (omitting agents, corporations and partners as these subjects are given in other courses); contracts under seal, including the form, requisites thereof, delivery and the matter of consideration; rights of beneficiaries under a contract; rights of assignees of a contract; conditions in contracts; rescission of contracts; damages for breach of contract; illegality; duress; mistake; statute of frauds, quasi-contracts. Costigan's *Cases on Contracts* (3d ed.).

**CRIMINAL LAW.****4 SEMESTER HOURS.**

Sources of criminal law; the elements of crime; effect of consent, condonation, negligence, or other misconduct of person injured, coercion and necessity; criminal intent; effect of mistake of fact, infancy, insanity, and intoxication; the criminal act; attempts; parties in crimes; assault and battery; mayhem; false imprisonment; abortion; rape; murder and manslaughter; larceny; embezzlement; obtaining property by cheats and false pretenses, receiving stolen property; burglary; arson; forgery; libel; perjury; conspiracy; criminal procedure in Massachusetts. Sayre's *Cases on Criminal Law*.

**DAMAGES.****2 SEMESTER HOURS.**

The theory and practice of the measure of relief in court; respective functions of court and jury in estimating damages, exemplary, liquidated, nominal, direct, and consequential; avoidable consequences; certainty, compensation, damages for non-pecuniary injuries; questions of value; interest; expenses; damages in the various types of tort and contract actions, and damages in taking under the right of eminent domain. McCormick's *Cases on Damages*.

**DOMESTIC RELATIONS.****2 SEMESTER HOURS.**

The law of husband and wife, the contract to marry; nature and requirements of marriage; relations between husband and wife; parent and child; dissolution of marriage by annulment, divorce and judicial separation. Jacob's *Cases on Domestic Relations*.



**EVIDENCE.****5 SEMESTER HOURS.**

Rules of evidence in the Federal Courts; machinery of the trial; examination of witness; refreshing recollection of witnesses; impeachment and corroboration of witnesses; admissions and confessions; character evidence; the opinion rule and the expert witness; the hearsay rule; statutory exceptions to the hearsay rule; common law exceptions to the hearsay rule including dying declarations, statements of fact against interest, pedigree, entries in the regular course of business, official records, declarations as to physical and mental conditions, *res gestae*; real evidence; best evidence rule; authentication of documents; handwriting evidence; privilege against self-crimination; privileges based on the marriage relationship; attorney-client privilege; judicial notice; the parol evidence rule; presumptions and burden of proof. Morgan and Maguire's *Cases on Evidence*, with Leach's *Supplement*.

**EQUITY.****6 SEMESTER HOURS.**

I. A thorough study of the nature of equity jurisdiction and the principles of equity as developed in the law of specific performance of contracts, the law of equitable servitudes on land and chattels, the law of vendor and purchaser, and the law of relief against torts. Chafee and Simpson's *Cases on Equity* (2 vols.); Chafee's *Cases on Equitable Relief against Torts*.

II. Miscellaneous equitable remedies, including interpleader, bills of peace, bills quia timet, reformation and rescission for mistake; recognition of decrees of other states for payment of money, conveyance of land, foreclosure; injunctions against foreign suits; and a study of border line torts affecting reputation, privacy, and the freedom of individual life. Chafee's *Equitable Remedies*.

**HISTORY, ORGANIZATION AND STANDARDS OF THE LEGAL PROFESSION.****2 SEMESTER HOURS.**

This course considers the Anglo-American historical background of the legal profession and of American Judicial Institutions. The organization, purposes and standards of the American Bar, and particularly of the Bar of Massachusetts. A discussion of problems of interest to the profession relating to the status, functions, duties and responsibilities of the lawyer, and the problems of professional conduct confronting the practitioner. Cheatham's *Cases and Materials on the Legal Profession*.

**INSURANCE.****2 SEMESTER HOURS.**

The history, nature and development of the general principles of insurance law as applied to the various forms of insurance contracts with respect to insurable interest, concealment, misrepresentation, warranties, and other causes of invalidity of the contract; amount of recovery, subrogation, conditions, waiver, estoppel, election and powers of agents, assignees and beneficiaries. Goble's *Cases and Other Materials on Insurance*.

**LANDLORD AND TENANT.****2 SEMESTER HOURS.**

Leases distinguished from licenses; special emphasis on the drafting of leases with relation to particular types of premises and particular needs of parties; creation and termination of leases for years, at will and at sufferance; special emphasis on liability in tort of both landlord and tenant for defects in the premises.

**MASSACHUSETTS PRACTICE AND PLEADING AT LAW AND IN EQUITY.****2 SEMESTER HOURS.**

Divisions of courts in Massachusetts and jurisdiction of each; venue of actions, writs and service of same; indorsement for costs; attachment of property on mesne process, by trustee process, and in equity; arrest on mesne process; entry of actions; appearances; non-suits and defaults; the Practice Act; the pleadings including declarations, motions to dismiss, answers and pleas in abatement, demurrers, and answers and pleas in bar; amendments; specifications; interrogatories; depositions; demand to admit facts; set-off, recoupment and cross actions; marking cases for trial; advancing actions for speedy trial; auditors, masters and assessors; tender and offer of judgment; motions, claim for jury trial; jurors, summoning witnesses; procedure at trial; verdicts; motions for new trial; motions in arrest of judgment; appeals; exceptions; reports; reservations; judgments; executions.



**MORTGAGES.****2 SEMESTER HOURS.**

The characteristic mortgage doctrines; the long and statutory short forms; equitable mortgages; construction loan mortgages; deficiency judgments; effect of passage of time on mortgages; taxes; insurance; assignment by mortgagee and mortgagor; merge; partial release and discharge; marshaling; special emphasis on the practice of foreclosure; redemption.

**MUNICIPAL CORPORATIONS.****2 SEMESTER HOURS.**

The nature, creation, constitution, control alteration, and dissolution of municipal corporations; their charters, proceedings, officers, and agents; powers and liabilities, taxation and indebtedness.

**OFFICE PRACTICE.****1 SEMESTER HOUR.**

This is a practical course covering the fundamental principles of drafting legal documents, including contracts, conditional sales, conveyances, mortgages, leases, wills, trusts, partnership agreements, etc. It also covers the problems of office management, as to personnel, office records, correspondence, filing system, time recording, valuation and billing, clients' accounts, and office library. Considerable time is given to the use of law books and the preparation of cases.

**PERSONAL PROPERTY.****2 SEMESTER HOURS.**

Distinction between real and personal property; possession, bailment; finder; lien; pledge; acquisition of ownership in chattels, including bona fide purchase, adverse possession, accession, confusion, judgment, satisfaction of judgment, and gift; fixtures and emblements. *Fraser's Cases and Readings in Property* (Vol II.).

**PRACTICE COURT.****1 SEMESTER HOUR.**

The Practice Court supplements the course in Common Law Pleading and is under the control and direction of the faculty. The purpose of the court is to give the students an opportunity to apply their knowledge of pleading and procedure and their knowledge of the substantive law in the conduct of an actually litigated controversy. The practice, so far as is possible, follows that of actual litigation. The senior students are divided into groups, or firms of lawyers, two in each group representing the plaintiff and two the defendant. These firms institute their actions in the various courts and conduct them through their various stages to final judgment or decree. The work of the Practice Court is required of all regular students and must be performed satisfactorily as a condition of promotion.

**PROPERTY I.****3 SEMESTER HOURS.**

Possession; air; land; streams; surface waters; underground waters; rights of reversioners; profits; easements; licenses; legal enforcement of covenants running with the land; equitable enforcement of agreements running with the land; rents, waste; public rights in waters and highways. *Bigelow's Cases on Rights in Land* (2d ed. 1934).

**PROPERTY II.****3 SEMESTER HOURS.**

Feudal system of land tenure; estates in land, including historical development of methods of creating and conveying the same; reversions, remainders and other non-possessory interests in land; concurrent ownership; disseisin and the remedies therefor; uses and trusts, including the statute of uses; accretion, adverse possession; prescription; voluntary conveyances; form of deeds; description of property granted; estates created; creation and incidents of joint tenancy; tenancy in common and tenancy by entirety; creation of easements and profits; covenants for title; execution of deeds; recording; estoppel by deed; dedication; examination of titles. *Bigelow's Introduction to the Law of Real Property*; *Warren's Cases on Conveyances*.

**PROPERTY III.****3 SEMESTER HOURS.**

Future and conditional interests in property.

Estates on condition, rights of entry for condition broken, license and waiver of breach, possibilities of reverter, reversions, vested and contingent remainders, future uses, executory devises and bequests, failure of executory devises, construction of limitations, cross-limitations, vesting of legacies, gifts on failure of issue, ascertainment of classes, powers, rule against perpetuities, restraints on alienation, illegal and impossible conditions. *Kale's Cases on Future Interests* (2d ed.).

**SALES.****3 SEMESTER HOURS.**

Sales and mortgages of personal property; historical and philosophical basis of this branch of law; subject matter of a sale; parties to a sale; the effect of fraud; passage of title; risk of loss; rights of the seller under the contract; conditional sales; documents of title; warranties expressed and implied; the rights of the buyer under the contract, and formalities of the contract. Williston and McCurdy *Cases on Sales*.

**SURETYSHIP.****1 SEMESTER HOUR.**

Rights of the creditor; rights of the surety against the principal, including reimbursement, subrogation and exoneration; rights of a surety against a cosurety, including subrogation and contribution; subsuretyship; creditor's interest in securities held by the surety; problems arising out of bankruptcy and insolvency; the statute of frauds; the surety's other defenses against the creditor. *Campbell's Cases on Suretyship*.

**TORTS.****6 SEMESTER HOURS**

Definition of tort; theory of liability in tort; distinctions between tort and breach of contract; defenses to torts or apparent torts; assignability of right of action in tort; damages; discharge of torts; disability, including responsibility of infants, married women, insane persons, municipal corporations and charities for torts; assault and battery; false imprisonment; trespass to property; slander and libel; slander of title; enticement and seduction; loss of consortium; deceit; infringement of trademarks; malicious prosecution; negligence. Bohlen and Harper's *Cases on Torts* (special edition).

**TRUSTS.****4 SEMESTER HOURS.**

Embracing the nature of a trust including analytical and practical distinctions between trusts and bailments, debts or contracts, conditions, mortgages and other relationships with emphasis upon the relation between banker and customer and broker and customer; the creation of a trust including intention, matters of consideration and the statutes of frauds and wills; the elements of a trust, its subject matter, the trustee and the *cestui que trust*; the charitable or public trust; resulting and constructive trusts and a consideration of typical situations where trusts are imposed by law; the administration of trusts; the nature of the *cestui que trust's* interest; powers and duties of the trustee, the investment of trust funds and the liabilities of the trustee to the beneficiary; liabilities to third persons; the doctrine of *bona fide* purchase and the consideration of what persons are bound by a trust; the transfer of the interest of the *cestui que trust* and the termination of a trust. *Scott's Cases on Trusts* (2d ed.).

**WILLS.****3 SEMESTER HOURS.**

Escheat; descent; statutory rules; wills — kinds, alternatives, advantages and scope of; execution, sound mind, fraud and undue influence; mistake; form; attestation; incorporation by reference; revocation by change in circumstance; by subsequent instrument; by physical act; dependent relative revocation; revival; republication; lapsed, void and adeemed gifts; conflict of laws; construction, probate and administration; jurisdiction; procedure; powers of representative; payment of debts; payments of legacies and distribution; statutory rights and allowances; practice. *Costigan's Cases on Wills* (2d ed.).

**GRADUATE COURSES****ADMINISTRATIVE LAW.****2 SEMESTER HOURS.**

This course deals with the powers and duties of public officers and of the organization and procedure of administrative agencies. It includes a consideration of the distinction between legislative, judicial, and executive powers; the conclusiveness of administrative determination; the requirement of due process; and the extent of judicial control over administrative action. This will include: The law of public officers; dealings with governmental units under which these officers work; administrative discretion; notice and hearing as requisites of administrative action; judicial interference with administration; finality of administrative determination; municipal legislation; powers, revenue; property rights; indebtedness; and liability. Stason's *Cases on Administrative Tribunals*.

**ADMIRALTY.****1 SEMESTER HOUR.**

This course deals with jurisdiction, general average and marine insurance, bottomry and *respondia*, salvage, maritime torts defined and limited; American and English doctrines on survival of actions for fatal injuries, navigation rules, damages in collision, limited liability act, priorities of maritime and non-maritime liens, pleading and practice, federal and state statutes changing the common law. Lord and Sprague's *Cases on Admiralty*.

**APPELLATE PRACTICE AND BRIEFS.****3 SEMESTER HOURS.**

Develops the fundamental principles underlying the procedure commonly employed in the courts of Massachusetts and in the trial and review of causes, both at law and in equity. The problems of appeal are based upon and pre-suppose steps taken, and motions and exceptions made before, during, and after the trial or proceeding in the lowest court. Therefore, the course will embrace as foundations for appeal the topics of venue, jurisdiction, judgments on default and demurrer, and arrest of judgment; continuance, the incidents of a jury trial, such as the right to a jury, its selection, opening statement, conduct of counsel, dismissal, non-suit and directed verdict, instructing the jury, and the verdict; trial by court without a jury, and the judgment.

What is reviewable; methods of review; parties to proceedings for review; preparation of briefs and handling of appeals in the various appellate courts.

**CONVEYANCING SEMINAR.****4 SEMESTER HOURS.**

This course will demonstrate the application of theoretical real property law to the practice of conveyancing, or passing upon real estate titles. Actual problems facing the conveyancer will be demonstrated and discussed. The student will be instructed in the preparation and use of the many forms which the conveyancer must utilize in his daily tasks.

Seminar discussions will give actual acquaintance with selected famous titles upon which much Metropolitan realty depends, and with famous cases in the Massachusetts Supreme Court involving real estate problems.

The course will cover the problems of the conveyancer in passing upon titles to real property — pertinent legal principles as to all of the various rights and incumbrances incident to ownership of real property—prescriptive rights, easements, restrictions, adverse possession, covenants, transfers through death with or without administration, mortgages, liens, fraudulent conveyances, equitable servitudes, etc.—land registration procedure, title certificates, preparation of deeds, mortgages, contracts to buy and sell, releases, and other papers.

The course will provide a practical review of the entire field of real property; probate practice as it pertains to real estate, and Land Court practice in Massachusetts.

**INTERNATIONAL LAW.****2 SEMESTER HOURS.**

This course deals with the origin, development, sources and force of international law; acquisition and recognition of international status; neutralized and protected states, recognition of belligerency, international right of existence and independence, intervention, property; jurisdiction over lands, seas, persons, nationals and aliens; diplomatic relations, treaties and international agreements, arbitrations and awards, reprisals, embargo, sanctions and blockade; definition of war, rights and obligations of belligerents, non-hostile relations

between belligerents; capture, treatment, exchange and release of prisoners; military occupations and government, armistices, methods of termination of war, rights of neutral states against search of vessels, seizure of contraband and blockade; national and international prize courts. Hudson's *Cases on International Law* (2d ed.).

## LABOR LAW.

## 2 SEMESTER HOURS.

This course will embrace an historical introduction to the labor laws; a study of the permissible ends towards which the concerted activities of employers may be directed; the legality of various forms of concerted activity, such as strikes, lockouts, boycotts, picketing; the labor injunction, including State and Federal legislation on the subject; legal aspects of the collective labor agreement; labor combinations under the Sherman Act; Federal and state labor relations acts. Landis' *Cases on Labor Law*.

## LEGAL HISTORY AND JURISPRUDENCE.

## 4 SEMESTER HOURS.

### a. *Legal History*

The historical development of the common law, and of the courts and institutions through which it functions, will be worked out in a series of horizontal periods. The purpose is practical as well as scholarly; it is to study and evaluate the past so that its materials may be understood for use in the practical legal present and some estimate may be made of the future.

Some familiarity will be acquired with great men, statutes and phrases which are still referred to in legal discussions and decided cases.

For the purpose of comparisons, there will be a brief outline of all the world's legal systems, other than the Anglo-American. Interesting similarities of juristic theories and practices will be pointed out.

### b. *Jurisprudence*

The science of justice is woven into the various periods of legal history, because it is deemed to be an inescapable part thereof. For earlier periods, the broad swings towards and away from stability and flexibility will be the chief matter studied. In more recent times, an outline of the analytical, philosophical and historical schools of jurisprudence will be evolved, with current theories and tendencies. American legal decisions will be used to illustrate recent theories of the science of law wherever possible.

## LEGAL RESEARCH FOR PRACTITIONERS.

## 1 SEMESTER HOUR.

### *Materials of Research:*

Legislative enactments: editions of Federal and State Constitutions, official, unofficial, annotated, unannotated; editions of Federal and State Statutes, official, unofficial, annotated, unannotated; treaties; governmental orders and regulations; municipal charters and ordinances; Rules of Court. Form of legislative acts, slip laws, session laws.

Judicial precedents: editions of Federal Reports, Supreme Court, lower Federal Courts, official, unofficial, annotated, unannotated; State Reports; National Reporter System; annotated reports; special subject reports; decisions of administrative bodies.

Books of index: digests; textbooks; restatements; encyclopedias; annotations; citators; dictionaries; legal periodicals; appeal papers.

### *Methods of Research:*

In Legislative enactments, Federal and State, direct and indirect methods; judicial precedents, Federal and State; the fact index method of approach — analysis of fact elements; topic method of approach; words and phrases method of approach; use of tables. Supplementing and evaluating precedents. Special emphasis will be placed on Massachusetts materials and methods of research in statutory compilations and reports of judicial precedents from 1628 to date. Particular reference will be given to methods of ascertaining the legislative and judicial history of local statutes, whether amended, superseded, repealed, etc., with judicial interpretations thereof. Some attention will be given to English materials and methods of research. The class lectures will be supplemented by actual demonstrations of methods in the school library. Suggestions will be made as to library requirements in the office of the practicing lawyer. Eldean's *How to Find the Law* (Brandt's 2d ed.).



**LEGAL SEMINAR.****2 SEMESTER HOURS EACH YEAR.**

This course will continue throughout the entire two years. The work will deal with fundamental subjects of the law by means of the presentation of written papers on assigned readings and research, followed by class discussion, formal argument, and the submission of briefs.

During the first year the following topics, among others, will be considered: Patents, copyrights and trade-marks, domestic and foreign; naturalization, nationality, aerial jurisdiction, expatriation, extradition and rendition, neutralization, marine insurance, inevitable accidents, maritime liens; other subjects in International, Admiralty, and Constitutional Law.

During the second year topics dealing with unfair competition, interference with contract, taxation and other pertinent topics will be considered, and a graduate thesis on some legal topic will be prepared and submitted as one of the requirements for the degree.

**PUBLIC UTILITIES.****2 SEMESTER HOURS.**

Development of the public utility concept; entry into public service; creation of the relation of public utility proprietor and patron; basis and extent of the public utilities' duties—as to service to all; adequate facilities, discrimination, reasonable rates; performance of the service; termination of the relation; withdrawal from service; utilities' right to make regulations; regulation by public through administrative agencies; functioning of such agencies; judicial review.

**TAXATION.****2 SEMESTER HOURS.**

The purpose of this course is to present taxation as a specialized art or function of the lawyer, rather than as an aspect of constitutional law, conflict of laws, accounting, or economics; to give the student information as to how taxes work and why they fail. To accomplish this aim, the course deals with the legal basis and legitimate purposes of taxation; the so-called general property tax and tax administration, protests to city assessors, and proceedings before the Massachusetts Board of Tax Appeals, estate, inheritance, and gift taxes; the income tax, State and Federal, its constitutional limitations, jurisdiction, the nature of taxable income, and the administration of the tax, modern excise taxes on business concerns, State excise taxes, Federal capital stock and excess profits taxes. Magill and Maguire's *Cases on Taxation*.



## REQUIREMENTS FOR DEGREES

### DEGREE OF BACHELOR OF LAWS (LL.B.)

To be eligible for the LL.B. degree, a candidate must have met the following requirements:

**Age.** Students must be twenty-one years of age at the time of receiving the degree.

**Period of Study.** A student must have been in regular attendance for a period of three years in the day curriculum or four years in the evening curriculum. An advanced standing student from an approved Law School shall attend such period as the full time faculty may determine, but in no case shall an advanced standing student qualify for his degree with less than one full year of regular attendance at Northeastern University School of Law.

**Examinations.** A student must have passed satisfactory examinations in at least eighty-two hours of required courses and secure the required general average. The minimum general average for the LL.B. degree is as follows:

(a) With no conditions in any law school subjects — an average of sixty-seven per cent.

(b) With one unsatisfactory grade in the subjects of the last two years—an average of seventy per cent.

The student will also be required to pass satisfactorily the work of the Practice Court and the courses offered on the preparation of legal forms and papers.

**Honors.** To qualify for honors a student must have met all of the above requirements and in addition thereto have passed his examinations with distinction in all of the courses required for the LL.B. degree. There are two classes of honors:

*Cum Laude.* Students who have met all of the requirements for honors and attain an average grade of between eighty-five per cent and ninety-one per cent, both inclusive, will be recommended for the degree, *Cum Laude*.

*Magna Cum Laude.* Students who attain an average grade of ninety-two per cent or better will be recommended for the degree, *Magna Cum Laude*.

### DEGREE OF MASTER OF LAWS (LL.M.)

To be eligible to receive the degree of Master of Laws, a candidate must have qualified for admission to the Master's course in candidacy for the Master's degree, and have passed satisfactorily courses aggregating at least six hours of class work a week for two school years. In addition, the candidate for such degree must engage in seminar and research work under the direction of some member of the faculty and complete and submit a satisfactory thesis on some subject chosen after consultation with the instructor, under whose direction the research is to be done.

## GENERAL INFORMATION

### REGISTRATION

The filing of an application for admission to the School does not constitute registration. All students, including those entering the School for the first time, are required to register and arrange for the payment of their tuition during the registration period. (See calendar, page 3).

Students are urged to register before the opening date whenever it is possible to do so.

### TUITION AND FEES

**Application Fee.** The application fee of \$5 must accompany the application for admission and is payable only once on initial entrance to the School. The fee is not refundable.

No application fee is required of those applicants for admission to the graduate course who are graduates of Northeastern University School of Law and have previously paid an application fee in the School of Law.

#### Tuition.

##### Undergraduate Students.

**Day Program.** The fee for tuition is \$200 a year, payable in four installments of \$50 each.

**Evening Program.** The fee for tuition is \$160 a year, payable in four installments of \$40 each.

Tuition for either day or evening students carrying less than a full program and for all courses in addition to a full program is at the rate of \$8 for each semester hour.

**Graduate Students.** The tuition fee is \$125 a year, payable in four quarterly installments.

The tuition fee for individual courses is on the basis of \$10.50 for each semester hour.

No reduction in tuition or fees is made on account of late registration.

Students who cannot meet their tuition payments before the due date should arrange with the proper officers for the late payment of their tuition.

The University policy is that each quarterly installment must be paid in full before the student may continue his attendance upon a subsequent quarterly period.

**Incidental Fee.** An Incidental Fee is charged all students each year and is payable at the time of payment of the first installment of tuition. The Fee for students in the Day Program is \$7. and for those registered in the Evening Program is \$5. For students carrying less than a full program, or courses in addition to a full program, an Incidental Fee of thirty cents (\$.30) for each semester hour is charged.

**Examination Fees.** Students taking an examination for the purpose of removing an incomplete, or a condition or for advanced standing

credit, are charged an examination fee of \$5. for each examination so taken; except that a student who takes a subsequent regular final examination to remove an incomplete is not charged the examination fee.

**Graduation Fees.** A graduation fee of \$10 is charged all candidates for the LL.B. or LL.M. degrees, payable on or before May 1, of the year in which they qualify for their degrees.

**Expense for Books.** The average yearly expense for casebooks, notebooks and other supplies is \$30. In many instances this expense may be reduced by purchasing used casebooks.

Through the efforts of the Class of 1935, a Lending Library has been established to assist students of limited means. Students may obtain books from this library, for use during the school year, upon the payment of a nominal sum.

**In General.** Students are not permitted to attend lectures until they have registered and have paid their tuition, or have made satisfactory arrangements with the Dean of the School of Law.

No grades are issued until all financial obligations to the University are discharged.

No student will be advanced in class standing or permitted to re-enroll in the University until all the bills of the previous year have been paid, and no degrees will be conferred upon students who have not paid all their dues to the University. No student will be given honorable dismissal from the School unless he shall have paid all his Law School bills.

**Withdrawals and Refunds.** If a student withdraws for good cause from a course and is permitted subsequently to repeat it, he shall be credited with the tuition paid by him. Such credit cannot be applied, however, until the balance due on the course has been paid. This rule does not apply where refund has been made.

In the event a student is obliged to withdraw from the School in which he is enrolled for causes deemed adequate by the Committee on Withdrawals, the balance of the tuition paid will be refunded after the following deductions have been made:

- (a) Four per cent of the total yearly tuition charge shall be deducted for each week of attendance or fraction thereof, in the event of enrollment for a full school year.
- (b) In case the applicant has enrolled for a semester, the deduction shall be made on the basis of ten per cent of the total charge for each week of attendance or fraction thereof.

Attendance is computed from the opening date of the semester until the date of last attendance.

Application, laboratory, deferred agreement and other fees are not refundable. Diploma charges are exceptions and will be refunded in the case of non-qualification.

No refunds are granted unless the application for withdrawal, together with the request for refund, and supporting data, are filed within forty-five days after the student has ceased attendance.

### ATTENDANCE AND EXAMINATIONS

Students are expected to attend with regularity the sessions of all courses in which they are enrolled. Students who are irregular in class attendance without justifiable cause may be dropped from the class rolls or be refused permission to take the final examinations in the course.

Examinations are held at the end of each semester in courses ending at those periods and in all full year courses. Any student who takes a re-examination must pay a fee of \$5. for each examination so taken. A student, who, because of an unsatisfactory grade in a final examination in a course, has been given the privilege of a re-examination, will be required to obtain a minimum passing grade of sixty-five per cent.

A student who is required to repeat a course must secure a minimum grade of sixty-five per cent in the course which he is repeating in order to pass.

Periodic tests and hour examinations are given throughout the school year to enable both the students and the faculty to appraise the effectiveness of their work.

### PROMOTION

Students will be expected to pass satisfactory examinations in all of the required courses of the curriculum. For poor work, as evidenced either by the classroom work or the results of examinations, the student may be warned, required to repeat, or dropped from the school.

A student who fails, on account of law conditions, to receive his degree in due course, shall be permitted to continue in the School only by special permission of the Faculty Committee of Administration and upon such conditions as shall be prescribed in each case.

### UNDERGRADUATE GRADING SYSTEM

The work of each student shall be graded upon examinations, according to the following scale:

	A	Superior
	B	Above average
	C	Average
	D	Lowest passing grade
	E	Unsatisfactory*
	F	Failure**
No examination	Inc.	Incomplete

\*An unsatisfactory grade may be made up by taking the make-up examination and obtaining a minimum of sixty-five per cent for the course, or by repeating the course in its entirety and obtaining a minimum of sixty-five per cent.

\*\*A failure may be made up, but only by repeating the course in its entirety and obtaining a minimum of sixty-five per cent in the course.

### DISCIPLINE

Attendance at the University is a privilege and not a right. The Committee on Administration reserves to itself the right to require the withdrawal of any student at any time whom it may deem unworthy either on account of his neglect of study, his incapacity for the law, or for any grave defect of conduct or character, and no reason for requiring such withdrawal need be given.

### GENERAL NOTICE

The hours of instruction, casebooks used, subjects taught, degree requirements, and like matters are subject to change at the discretion of the Dean and Committee on Administration, but there will be no change in charges for tuition, or any other major change, during the school year for which a student has registered.



## SCHOLARSHIPS AND PRIZES

### UNDERGRADUATE PROGRAM

#### LAW SCHOOL HONOR SCHOLARSHIPS

Northeastern University has created within the School of Law the following scholarships:

1. Three \$75 scholarships to be awarded respectively to the member of the Junior, Sophomore, and Freshman class who receives the highest scholarship average, provided he re-enrolls for the next year. In the event he does not re-enroll, the student having the second highest scholarship average shall be awarded the scholarship.
2. Three \$50 scholarships to be awarded respectively to the member of the Junior, Sophomore, and Freshman class ranking next highest to the student who receives the \$75 award, provided in each instance that the student re-enrolls for the next year. In the event a student does not re-enroll, the next highest ranking student shall receive the award.
3. Six \$25 scholarships to be awarded respectively to the two members in each of the Junior, Sophomore, and Freshman classes ranking next in order to the student who receives the \$50 award, provided in each instance that the student re-enrolls for the next year. In the event that a student who qualifies for this award does not re-enroll, the next highest ranking student in his class shall receive the award.

#### SCHOLARSHIPS FOR COLLEGE GRADUATES

A limited number of special scholarships have been established for college graduates. Awards will be made on the recommendation of the Dean and will be upon the basis of the applicant's financial need, character and scholastic attainments. These scholarships range from \$25. to \$35. per year.

Written application for college scholarships must be filed on or before the time of registration.

#### THE KAPPA DELTA KAPPA SCHOLARSHIP

A scholarship gift to be awarded annually to the member of the Sophomore class, who, in the opinion of the administrative officers of the School, has through his personality, character, conduct, service and scholarship made the greatest contribution to the School. This award is to be made only in the event the student returns for his Junior year.

#### BENJAMIN GINSBERG MEMORIAL SCHOLARSHIP

A fund given by the Upsilon Delta Sigma Fraternity to establish a scholarship in memory of Benjamin Ginsberg of the Class of 1927. The scholarship is to be awarded annually to the highest ranking student of the Sophomore class.

### SIGMA TAU EPSILON FUND

A fund of \$100, the income to be used to purchase a prize in the form of a book to be presented to the student whose grades rank the highest in the Freshman year. The student is to be presented with this prize only in the event he re-enrolls for his Sophomore year.

### THE GAMMA KAPPA NU SCHOLARSHIP FUND

A fund of \$800, the income to be used as a scholarship gift in the form of the first installment of tuition in the Senior year.

This scholarship gift "shall be presented annually to that woman in the Junior class who has done the most for the School and has also maintained a high scholarship in her studies, and provided that she registers for her Senior year."

### PHI PI CHI SCHOLARSHIP

A fund, the income of which is to be used to purchase a prize in the form of a law book, to be presented to the student whose grades rank among the first ten on the Dean's list in the Freshman year.

The Executive Council of the Chapter in conjunction with the Faculty Adviser shall select the student. Presentation is to be made only in the event that the student enrolls for his Sophomore year.

### GRADUATE PROGRAM

The University has created a few scholarships of \$25 each to be awarded annually to students enrolled as candidates for the degree of Master of Laws.

First-year as well as second-year students in the Master's Program are eligible for these awards. These scholarships will be granted at the discretion of the Committee on Administration to those students of high scholastic attainment whose need, ability, and fitness to pursue graduate study, merit the award.

### LIBRARY

The law school library is well lighted and furnished and easily accessible. It contains more than 10,000 volumes and is steadily growing. The library is so arranged as to give the student direct access to the books in the stacks as well as in the reading room. The library contains many of the State Reports, the complete National Reporter System, the Federal Reports, and reports of the Supreme Court of the United States, the English Reports, English and American Digests, and an extensive collection of encyclopedias, annotations, treatises, legal periodicals, approved textbooks, and all current casebooks.

The library is open weekdays from 8:45 A.M. to 10:00 P.M.; Sundays from 2:00 P.M. to 6:00 P.M.; and holidays from 12:00 M. to 6:00 P.M.

## COLLEGES REPRESENTED IN THE SCHOOL OF LAW STUDENT BODY

Armour Institute of Technology	1	Northeastern University	38
Amherst College	1	Notre Dame College	1
Assumption College	1	Providence College	1
Bates College	2	Ohio University	1
Boston College	22	Radcliffe College	2
Boston Teacher's College	2	St. Anselm's College	1
Boston University	58	St. Joseph's College	1
Bowdoin College	9	St. Petersburg Junior College	1
Bridgewater State Normal	1	Simmons College	1
Brooklyn College	1	Smith College	2
Brown University	5	Technische Hochschule Darmstadt,	
Carleton College	1	Germany	1
Catholic University of America	1	Tufts College	5
Clark University	1	United States Naval Academy	1
Colby College	1	University of Alabama	3
College of William and Mary	1	University of Chicago	1
College of Wooster	1	University of Cincinnati	1
Columbia University	1	University of Kentucky	1
Columbus University	1	University of Maine	4
Cornell University	3	University of Munich, Germany	1
Dartmouth College	4	University of New Hampshire	5
DePauw University	1	University of North Carolina	1
Duquesne University	1	University of Pennsylvania	5
Emmanuel College	1	University of Pittsburgh	1
Franklin and Marshall College	1	University of Vermont	1
Georgetown University	4	University of Wisconsin	1
Glasgow University, Scotland	1	Union College	1
Guilford College	1	Upsala College	1
Harvard University	49	Urbana Junior College	1
Holy Cross College	4	Wesleyan University	1
Massachusetts Institute of Tech-		Western Reserve	1
nology	7	Williams College	2
Massachusetts State College	5	Yale University	3
Middlebury College	1		
New York University	5		
Nichols Junior College	1		

## DEGREES CONFERRED IN 1938

## MASTER OF LAWS

Jeremiah Joseph Hurley  
Saul Eugene Jofes

Joseph A. Raia  
Max Louis Rubin  
Ralph K. Sayward

Helen Mary Schultz  
Peter Shimon, Jr.

## BACHELOR OF LAWS

Frank Richard Aikin  
Alfred Abraham Albert  
Morgan Louis Amaimo  
Leonard Herbert Arber  
Herbert George Barron  
Samuel Colcord Bartlett, Jr.  
Arthur Beggelman  
Carl Gustavus Bergstedt  
Franklin Shaw Berkover  
Carl Blesofsky  
John Thomas Bowes  
Earl Rhoderic James Brady  
Joseph Samuel Braticevich  
Moses John Bright  
John William Burke  
Barnet Burstein  
Edward Victor Chaput  
Allan Wesley Cole  
Izetta Ellen Collins  
Genevieve Coughlin  
Alfred Harry Cutler  
Robert Philip DeSoto  
Thomas Patrick Dillon  
Peter Edward DiSessa  
Benjamin Hallowell Dorman  
John James Doyle, Jr.  
Percy Stevens Eaton  
William John Edgcombe  
Robert Vernon Fairbank  
John Joseph Falvey  
Albert Finn  
David Freeman  
Irwin Henry Ganick  
A. William Gillis  
David Eugene Glassman  
Max Glassman  
Arnold Alfred Goldman  
Nathan Goldstein  
William Edwin Halliday, Jr.  
Samuel Handler  
Edward Joseph Harding

Stanley Ira Harper  
Albert Frederick Harrison  
John Edmond Hayes  
Catherine Mary Hess  
Arthur Samuel Hoffman  
Harold Ernest Hollingworth  
Joseph David Jacobs  
Timothy Francis Kane  
Harry Kaplan  
Herman Karll  
Harold Katz  
John Francis Kelley  
Joseph Michael Kelly  
James Porter Kilburn  
John Edward Kilgallen  
Louis Kirstein  
Kilby Thomas Kline  
Walter Wishman Knowlton  
William Charles Krupp  
Alma Rose Landry  
John Joseph Lawler  
Wilbur Cyrille Leeman  
John Ligotti  
Douglas Gould Lillie  
Robert Alfred Lombard  
Nicholas M. Magnasco  
Maurice F. Maher  
Douglas Irving Mann  
Seymour Shapiro Marks  
Armida Massa  
Francis Vito Matera  
Bertram Samuel Matz  
Anna C. McCormack  
John Ralph McGrath  
Thomas F. McLaughlin, Jr.  
John George McMahon  
Leonard Russell McNelly  
Maurice Mirkin  
Carl George Moberger  
Abraham Monsein  
John Joseph Mullen, Jr.

James Edward Murphy  
Edward Nappan  
John Anthony Nichols  
Alfred Victor Nigro  
Maurice Palter  
Irving Perlmutter  
John Hart Pransky  
Peter William Princi  
Arthur Abraham Provizer  
Solomon Samuel R. Provisor  
Mary Adeline Raia  
Clarence Herbert Rison  
Walter Vincent Robinson  
Grace Marian Roper  
Frank John Conway Ross  
Sidney Thomas Ross  
Clarence Worth Rowley, Jr.  
Benjamin Rudner  
Hyman Rutstein  
Leon Edward Serkin  
Hyman Shaker  
Irene Rhoda Shriber  
Louis Silverman  
James Otis Smith  
Noah Solomon  
Paul Somers  
Frederick Winslow Stetson, Jr.  
Sydney Joseph Stone  
George Francis Stratton  
Jack Stulin  
Helen Marie Sullivan  
Harold Mark Tobin  
Mary Nancy Ungaro  
Clifton Bulgin Watkins  
John Joseph Wickham  
Charles Milton Wilcox  
Frederick Howard Wilder, Jr.  
Mary Frances Jordan Wilson  
James Zafarana  
Joseph H. Zwetckkenbaum

## CUM LAUDE

George Woodman Emery  
Joseph Ford  
Frances G. Gilman

William David Lane  
Samuel Livingstone  
Vera Matson

Emmett Robert Nichols  
Robert Vincent O'Sullivan  
Elliot Stone

## DEGREES AWARDED OUT OF COURSE

## BACHELOR OF LAWS

James Anthony Beatrice  
Nathan Blacker  
Joseph Jeremiah Contrada  
Albert Crosby  
George Epstein  
Arthur Joseph Hanfig

Sally Rose Jackym  
Philip Sherman Kantrowitz  
Thaddeus Thomas Kosciolk  
Joseph John Monaghan  
George William Morgan  
Thomas Ignatius Murphy

Mary Katherine Nichols  
John Patrick Roche  
Alphonse Sancinoto  
David Tabasky  
Albert Yorra

## GRADUATE STUDENTS

## CLASS OF 1939

ANSELMO, VANDA C. \ West Medford  
Northeastern University, LL.B.  
ABKOWITZ, PAUL B. Revere  
Northeastern University, LL.B.  
BERGER, ENGLEBERT J. Adams  
Northeastern University, LL.B.  
CARNES, ARTHUR J. Malden  
Suffolk Law School, LL.B.

CAVANAGH, FRANK J. Brighton  
Suffolk Law School, LL.B.  
Northeastern University, B.B.A.  
CORKUM, WILLIAM E. South Weymouth  
Northeastern University, LL.B.  
FACEY, WALTER L. Lexington  
Boston University  
Northeastern University, LL.B.

GOODNESS, JOSEPH H. <i>Boston University, B.B.A.</i> <i>Northeastern University, LL.B.</i>	Roslindale	NIGRO, ALFRED V. <i>Northeastern University, LL.B.</i>	Reading
HARPER, STANLEY I. <i>Northeastern University, LL.B.</i>	Wakefield	PERRY, CHARLES J. <i>Northeastern University, LL.B.</i>	Dedham
HUTCHINS, FERNALD <i>Northeastern University, LL.B.</i>	Brookline	POTTERTON, M. PATRICIA <i>Northeastern University, LL.B.</i>	Brookline
KALIKOW, JOSEPH <i>Northeastern University, LL.B.</i>	Lynn	PRANSKY, JOHN H. <i>Northeastern University, LL.B.</i>	Winthrop
LINEHAN, THOMAS E. <i>Northeastern University, LL.B.</i> <i>Northeastern University, B.B.A.</i>	Dorchester	ROSS, FRANK J. <i>Northeastern University, LL.B.</i>	Quincy
NICHOLS, EMMETT R. <i>Northeastern University, LL.B.</i> <i>De Pauw University, B.B.A.</i>	Saugus	SERKIN, LEON E. <i>Boston University</i> <i>Northeastern University, LL.B.</i>	Mattapan
		WILSON, MARY F. J. <i>Northeastern University, LL.B.</i>	Boston

## UNDERGRADUATE STUDENTS

### CLASS OF 1939

AHERN, CHARLES F Somerville	EMERY, J. DONOVAN Lowell
ANASTASI, JOHN E. South Boston	FARRELL, EDWARD H. Malden
ANDERSON, HARRY W. Boston	<i>Boston College</i>
<i>University of Cincinnati, C.E.</i>	FARROW, CHARLES W. Stoneham
<i>Harvard Business School, M.B.A.</i>	FIELD, ELDRED Lowell
ANDREWS, GEORGE J. Lynn	<i>Boston University</i>
ARCHAMBAULT, NORMAND A. Boston	FISHMAN, SAMUEL L. Dorchester
ATKINSON, SAMUEL G. Brookline	FITZGERALD, JOSEPH M. Medford
<i>Harvard University, A.B.</i>	FITZGERALD, PAUL R. Lowell
AUGER, DIANA J. Boston	FOOTER, HAROLD Revere
BAKER, WILLIAM W. Lubec, Maine	FOX, LOUIS Cambridge
BARRY, ROBERT E. Boston	FOX, RICHARD Mattapan
<i>Boston College, A.B.</i>	FRAM, SAUL M. Cambridge
BEAN, WILLIAM S. Chelsea	FRANKEL, HENRY Brookline
BOND, GERALD E. Revere	<i>New York University</i>
BONGIORNO, THOMAS, JR. Nahant	GAGE, C. ELLEN Boston
BOURQUE, HENRY E. Dedham	GAITHER, PERRY S. Boston
BRAMLEY, ROBERT W. Cambridge	GALGAY, JOHN J. Cambridge
BROADE, RONALD A. Hingham	GARDNER, JAMES F. Boston
BURNS, A. LAWRENCE Brookline	GARTLAND, JOHN J. Dorchester
BURROWS, OSCAR Boston	GASCON, ADELBERT J. Boston
CALL, ARTHUR J. Exeter, New Hampshire	<i>Northeastern University</i>
<i>University of New Hampshire, A.B.</i>	GELLER, MAX S. Mattapan
CARBONE, PAUL A. East Boston	GILES, CHARLES M. Newton Centre
CAREY, JOHN J. Cambridge	<i>Colby College, B.S.</i>
CARPENTER, JOSEPH W. Mattapan	GINSBERG, MAX S. Brookline
CARR, WALTER E. Providence, R. I.	<i>Harvard University, A.B.</i>
CHAPMAN, RICHARD P. Wellesley Hills	GORIN, OSCAR A. Gardner
<i>Carleton College, A.B.</i>	GOWEN, FRANCIS T. Newton Highlands
<i>Harvard Business School, M.B.A.</i>	<i>Massachusetts Institute of Technology, B.S.</i>
CHASE, EDWARD PAYSON Cambridge	GREGORY, GEORGE W. Winchester
<i>Harvard University, A.B.</i>	GRIFFIN, REGINALD J. Methuen
<i>Harvard University, M.B.A.</i>	GUARAGNA, LOUIS South Boston
CLARK, EDYTHE M. West Bridgewater	HALE, ALAN M. Middleboro
COHEN, FREDERIC Roxbury	HALL, JOHN F. Boston
COLSON, WENDELL B. Boston	HILL, ARMAS K. Quincy
CONNELL, ROGER J. Swampscott	HINGSTON, CHARLES E. Lynn
<i>Boston University</i>	<i>Tufts College, B.S.</i>
CORCORAN, FREDERICK L., JR. Arlington	HIRSCH, WILLIAM Dorchester
<i>Northeastern University, S.B. in E.E.</i>	HOBBS, ROBERT H. Dorchester
COX, NORWOOD Cambridge	HOFFMAN, ALFRED J. Saugus
CRANE, EDWARD A. Cambridge	HOLBROOK, ELLIOTT S. Chestnut Hill
<i>Harvard University, A.B.</i>	HUGHES, HENRY Boston
CRONIN, EDWARD J. Chelsea	<i>Boston University, B.B.A.</i>
DALY, FRANK R. Boston	HUNTER, MILDRED J. Boston
DARLING, ALICE I. Cambridge	JACKSON, JOHN, JR. Medford
<i>Bridgewater Normal School</i>	JACOBSEN, JENS M. Cambridge
DAVIS, ARNOLD R. Quincy	JENSEN, C. E. VERNON Westwood
DE NATALE, JOHN L. Boston	<i>Northeastern University</i>
DE STEFANO, MICHAEL West Roxbury	JOHNSON, ERNEST H. Allston
<i>Northeastern University, B.S. in C.E.</i>	<i>Dartmouth College, A.B.</i>
DI BENEDETTO, GEORGE P. Brighton	JOHNSON, FRANKLIN R. Wellesley
DIVINO, LAWRENCE Revere	JOHNSON, THOMAS F. Pinehurst
DONOHUE, THOMAS F. Orient Heights	KALIN, JOHN P. Needham
<i>Boston University</i>	KANTROVITZ, BENJAMIN Roxbury
DUMAS, MARIE L. Lisbon Falls, Maine	KAPLAN, MAURICE E. Lynn
DURETTE, JEAN C. Manchester, N. H.	KELLEHER, GERTRUDE M. Salem
<i>Assumption College, B.A.</i>	<i>Northeastern University</i>
EBACHER, LAURIE A. Amesbury	KENDALL, MEYER Dorchester



KENWAY, HERBERT P. <i>Yale University, B.A.</i>	Marblehead	REEVES, EDYTHE F. <i>Brown University, A.B., A.M.</i>	Auburn, R. I.
KERR, WILLIAM H. <i>Harvard University, A.B.</i>	Boston	ROMANO, HUGO	Boston
KILROE, JOHN F.	Boston	ROSE, WILLIAM L. <i>College of William and Mary</i>	Chelsea
KING, ARTHUR T.	Belmont	RUBY, CHARLES E. <i>University of Kentucky, B.S.</i>	Boston
KIRBY, JOHN J.	Boston	<i>Massachusetts Institute of Technology, Ph.D.</i>	
KLINE, LEO	Dorchester	RYAN, GEORGE S.	Dorchester
KLYMAN, SAMUEL E.	Roxbury	RYNNE, EDWARD J.	Cambridge
KOFMAN, SAMUEL E.	Mattapan	ST. CLAIR, ASHLEY <i>Dartmouth College, A.B.</i>	Needham
KRAMER, MAX F. <i>Massachusetts State College</i>	Winthrop	SALINS, LEWIS S.	Brookline
KRAVETZ, DAVID B.	Mattapan	SHANKER, HARRY O.	Mattapan
LEVIN, SEYMOUR	Brookline	SHAPIRO, JOSEPH	Roxbury
LIGHTBOWN, JAMES P. <i>University of New Hampshire, A.B.</i>	Fall River	SHERMAN, MYRON W.	Dorchester
MCCARTHY, JEREMIAH F.	Roslindale	SILVER, FRANK A.	Allston
MCGONIGLE, SUSAN E.	Winchester	SLOBODKIN, LOUIS	Roxbury
MCGOVERN, THOMAS M.	Boston	SMITH, EARLE H. <i>Boston University</i>	Somerville
MACCAUSLAND, PHILIP R.	Boston	SOUTHWORTH, RODNEY C. Providence, R. I. <i>Northeastern University, B.M.E.</i>	
MANN, ROBERT V.	Dorchester	SPACK, ALLAN A.	Roxbury
MAYER, ALBERT	Medford	STIRLING, THOMAS W.	Jamaica Plain
MELNICK, ALBERT W.	Revere	STONE, JOSEPH <i>Harvard University, A.B.</i>	Boston
MESSINA, JOSEPH A.	Brockton	STOPSKY, EVA E.	Boston
MILLER, BURTON F.	Dedham	SUGERMAN, JACOB	Roxbury
MORGAN, HERBERT E.	Boston	SULLIVAN, JEREMIAH J. <i>Georgetown University</i>	Cambridge
MORRIS, NATHAN <i>Boston University</i>	Dorchester	SULLIVAN, JOHN K. <i>Union College, A.B.</i>	Pittsfield
MUNROE, EDWARD M.	Newtonville	TORREY, WILBUR K.	Arlington
MURPHY, EDWARD W.	Dorchester	TUCKER, GEORGE R.	Pittsfield
MURPHY, JOHN H. <i>Georgetown University</i>	Belmont	TUCKER, HERBERT E., JR.	Roxbury
NEAL, FRANCIS F. North Berwick, Me. <i>University of Maine</i>		VALLELY, JOHN F.	West Roxbury
OBER, HAROLD	Dorchester	WALLACE, WILLIAM V. <i>Bates College</i>	Mattapan
OBERDORFER, CONRAD W. <i>University of Munich, LL.D.</i>	Cambridge	WARD, JOHN W.	Peabody
O'DONNELL, JOHN J.	Boston	WEINSTEIN, HYMAN	Salem
O'MALLEY, CHARLES D. <i>Boston College, A.B.</i>	Chestnut Hill	WEISBERG, EDWARD L.	Dorchester
OSER, NATHANIEL H.	Brookline	WERNER, WILLIAM F. <i>Brooklyn College</i>	Providence, R. I.
OSTROFF, NORMAN	Dorchester	WILKINS, BRUCE E.	Belmont
PALLOTTA, EDWARD	Medford	WOODWARD, FREDERICK H. <i>University of Vermont</i>	Brookline
PETRUCCI, SALVATORE J.	Winthrop	YABOVITZ, NATHAN M.	Quincy
POWERS, DAVID F., JR.	Shrewsbury	ZINKOWSKY, LEON E.	Nrowood
PRICE, MARY A.	Roslindale	ZYVASKI, CHARLES M.	Boston
REDMOND, UDELL S. <i>Smith College, A.B.</i>	Lynn		

## CLASS OF 1940

ABRAMHOFF, MILTON	Roxbury	BROWN, EMMONS B. Newton Highlands <i>Dartmouth College, A.B.</i>	
ABRAMS, ABRAHAM	Roxbury	BRUDNICK, WILLIAM C.	Dorchester
ABRAMSON, HAROLD A.	Mattapan	BURTON, RICHARD E. <i>Harvard University, A.B.</i>	Boston
ADLER, AARON	Fall River	CAMERON, PAUL A. <i>Northeastern University, S.B. in B.A.</i>	Arlington
AMERSE, GEORGE C.	Jamaica Plain	CANFIELD, HELEN R. <i>Smith College</i>	Wellesley
AUSIELLO, ARMAND	Revere	CARLSON, HARRY L.	Dorchester
BAKER, JAMES A.	Bridgewater	CARR, JOHN	Medford
BALANDA, FRANCIS J.	Waban	CARRET, CHARLES T.	Jamaica Plain
BALDWIN, WALTER W. <i>Franklin Marshall College</i>	Cambridge	CARUSO, ANTHONY J.	East Boston
BANKS, VINCENT M. <i>Harvard University</i>	South Boston	CARUSO, PHILIP P.	Waltham
BISBEE, THEODORE W., JR. <i>Urbana Junior College</i>	Plymouth	CHAPMAN, S. ALLEN <i>Williams College, B.A.</i>	Plymouth
BLACKER, LEO	Dorchester	CHARTOFF, JACOB <i>Harvard University, A.B.</i>	Dorchester
BLAKE, DANA P. <i>Northeastern University, B.C.S.</i>	Cambridge	CHICOS, PETER G.	Watertown
BLUMSACK, HAROLD	Malden	CICCIO, JOSEPH F.	Roslindale
BOOKSTEIN, ABRAHAM	Roxbury	CLANCY, CHARLES F.	Roslindale
BORTMAN, DOROTHY	Roxbury	CLARK, EDWARD P. <i>Harvard University, A.B.</i>	Arlington
BOYARSKY, EZRA <i>Boston University, B.S.</i>	Springfield	CLERICO, JOHN J.	Cambridge
BRENNAN, JAMES A. North Cambridge <i>Boston College, A.B.</i>		COHEN, MELVIN	Chelsea
<i>Boston University, M.B.A.</i>		CONDOS, MITCHELL G. <i>University of Alabama, B.S.</i>	Forest Hills
BRONSTEIN, I. EDWARD	Roxbury		
BROWN, ARTHUR J.	Dorchester		

CONNELLY, CLEMENT E.	Salem	LEARNER, NATHAN	Roxbury
CONNELLY, CLINTON A.	Attleboro	<i>Harvard University</i>	
<i>University of Pennsylvania, A.B.</i>		LEARY, EDWARD J.	Dorchester
CONVIER, ISRAEL	Dorchester	LEARY, JAMES E.	Watertown
COREY, JOSEPH	West Roxbury	LEE, CARTER	Quincy
COUGHLIN, JOSEPH P.	Cambridge	<i>Bowdoin College, A.B.</i>	
CRANNEY, MILTON E.	Peabody	LESSA, MICHAEL C.	East Boston
CURCIO, VINCENT C.	Medford	LEVESQUE, HERBERT W.	Salem
CURLEY, CHARLES E.	Dorchester	LEVY, JAMES	Roxbury
CUSICK, JOHN J.	Boston	LONDON, EDWARD J.	Brookline
DARRELL, CLEMENT E.	Dorchester	<i>Harvard University, A.B., A.M.</i>	
DAVIS, GEORGE C.	Dedham	LOUGHRAN, GEORGE E.	Brighton
DAVIS, JUNE W.	Wollaston	LYNCH, ROBERT J.	Waltham
DAVIS, RALPH	Mattapan	MCCARTHY, JOSEPH J.	Hyde Park
DECONTO, SILVIO R.	Medford	MCCARTHY, PAUL J.	East Boston
DELUCA, JOHN	Everett	MCCORMACK, PAUL J.	Newton
DENNIS, ORVILLE F.	Wollaston	MCCORMACK, RICHARD F.	Belmont
DEVER, EDWARD J.	Belmont	<i>Boston University</i>	
<i>Catholic University of America, A.B.</i>		MCKAY, FRANKLIN R.	Attleboro
DONALDSON, ROBERT M.	Wellesley	MCCLANE, CHARLES W.	Jamaica Plain
DONOGHUE, TIMOTHY J.	Roslindale	MCWATERS, CARL A.	Boston
DONOVAN, HELEN A.	Jamaica Plain	MACDONALD, JOSEPH N.	Auburndale
DOWD, FRANK J., JR.	Melrose	MACDONALD, MURIEL C.	Winthrop
DRISCOLL, FRANCIS X.	Allston	MACLEAN, ROBLEY, D. E.	Wollaston
DRISCOLL, JOHN E.	South Boston	<i>Brown University, Ph.B.</i>	
DRUCKER, JACK	Boston	MACLEOD, MALCOLM A.	Roslindale
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<i>Simmons College</i>		MAZER, SYDNEY	Chelsea
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FITZGERALD, WILLIAM J.	South Boston	MELILLO, GUY	East Boston
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<i>Massachusetts Institute of Technology</i>		MILLER, LOUIS J.	Brighton
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GORSKI, WALTER	Southville	O'BRIEN, FRANCIS W., JR.	Somerville
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GREENE, JAMES H.	Medford	OLSON, PHILLIP R.	Beverly
GRIBBLE, FRANCIS J.	Westboro	O'MALLEY, WILLIAM F.	Dorchester
HANDLEY, JAMES L.	Lowell	O'SHEA, PAUL M.	Dorchester
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<i>Boston University</i>		PAYSON, ALFRED C.	West Roxbury
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<i>Harvard University, S.M. in E.E.</i>		<i>Northeastern University, B.C.S.</i>	
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<i>Boston University</i>		POLLAK, GLADYS T.	Mattapan
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<i>Massachusetts Institute of Technology</i>		RACHINS, JACOB R.	Mattapan
KNOWLTON, ELLIOTT H.	Malden	RAHER, KATHRYN G.	Malden
<i>Boston University</i>		RAMEY, BERNARD F.	Roslindale
KNOX, EDWARD A., JR.	Malden	RISPIN, FRANCIS L.	Allston
KOOSHNER, SOLOMON	Dorchester	ROBERTS, PAUL	Dedham
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LAKE, FRED A.	Chelsea	<i>Boston University</i>	
LATO, MANUEL S.	Dorchester	RYAN, JOHN F.	Roxbury
LAW, GEORGE	Arlington	<i>Boston College</i>	
LAWRENCE, PHILIP E.	Boston	SANDERSON, HERMAN H.	Cambridge
<i>Harvard University, A.B.</i>		SAROFEN, GEORGE	Brockton

SATTER, THEODORE <i>Boston University</i>	Mattapan	TRAYERS, JAMES J.	Charlestown
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SERONICK, IRVING H.	Dorchester	WARD, JOSEPH T. <i>Boston College</i>	Watertown
SHEEHAN, THOMAS J.	Rosindale	WAX, BENJAMIN	Boston
SHILLER, HAROLD <i>Boston University</i>	Roxbury	WAX, LOUIS M.	Brookline
SIEGAL, ARTHUR	Roxbury	WEINBERG, FRANCES	Mattapan
SIEGAL, IRVING M.	Mattapan	WEINER, BENJAMIN F.	Revere
SILVERMAN, BERNARD	Dorchester	WEINSHANKER, DAVID	Dorchester
SILVERMAN, FLORENCE	Dorchester	WEINTRAUB, EDWARD I.	Newburyport
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SNOW, M. ELIZABETH	Watertown	WHALEN, WALTER N. <i>Bates College</i>	Boston
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STALOFF, LAWRENCE	Dorchester	WHITTAKER, ARTHUR	Medford
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STRUZZIERO, ERNEST J.	East Boston	WHOLLEY, LAWRENCE J. <i>Northeastern University</i>	Dorchester
SULLIVAN, ELMER R. <i>Boston University, B.S.</i>	Fall River	WILSON, BRUNO W.	Peabody
<i>Columbia University, A.M.</i>		WINCHESTER, REGINALD L.	Newton
SULLIVAN, FREDERICK J.	Chelsea	WINTMAN, MELVIN R. <i>Massachusetts State College</i>	Chelsea
SWIG, IRVING J.	Brookline	WOODMANCY, AMY B.	Boston
TIGHE, JOHN G. <i>Northeastern University, B.C.E.</i>	Dorchester	YOUNG, EDITH E.	Wollaston
TINGUS, CONSTANTINE	Boston	ZEFF, JULIUS B. <i>Boston University</i>	Chelsea
TIRRELL, WILBUR G. <i>Massachusetts State College, B.Sc.</i>	South Weymouth	ZWETCKENBAUM, ROBERT	Taunton
TITLEMAN, KENNETH	Dorchester		
TOSI, EDNA A.	Winthrop		

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ANTHONY, GEORGE H.	Saugus	CIMINI, FRANK W. <i>University of Pennsylvania</i>	Pittsfield
APPLETON, EDWARD F. <i>Bowdoin College</i>	Boston	CIRIELLO, NICHOLAS P.	Readville
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ARCHAMBAULT, GEORGE F.	Belmont	CLINE, MELVIN L.	Stoughton
ARNOLD, JOHN L. <i>Bowdoin College, A.B.</i>	Brookline	COFSKY, HELEN C.	Norwood
<i>Harvard University, M.B.A.</i>		COHEN, MARTIN W.	Roxbury
ARNOLD, PHILIP A. <i>Antioch College</i>	Danvers	COLEMAN, RAYMOND A. <i>Georgetown University</i>	Belmont
BARRETT, WILLIAM L.	Foxboro	CORCORAN, JOHN M.	East Braintree
BARRON, MARY D.	South Boston	CORNELL, CHARLES H. <i>Northeastern University, B.C.S.</i>	Needham
BARSTOW, TRUMAN A.	Malden	<i>Northeastern University, M.C.S.</i>	
BASSETT, CHARLES S.	Newton Highlands	<i>Boston University, M.B.A.</i>	
BATES, NORINE J.	Wollaston	CORSADDEN, JOHN E. F.	Jamaica Plain
BECHERMAN, HERBERT M. <i>Northeastern University, S.B. in B.A.</i>	Lynn	CRONIN, JOHN J.	Chelsea
BENNETT, RODNEY A.	Danvers	CRONIN, PAUL J.	Cambridge
BERGER, J. JOHN	Methuen	CROVO, ELIZABETH	Woburn
BERNHART, WESLEY C.	South Weymouth	DARGIN, JOHN FRANCIS J. <i>Boston College</i>	Dorchester
BERNICCHI, LOUIS P.	Somerville	DAVIS, SYDNEY M.	Mattapan
BEUCLER, WILLIAM C.	Cambridge	DEVINE, MARION L.	Dorchester
BIES, STANLEY A.	Brookline	DI BUONO, ANTHONY J.	Marlboro
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BLAKE, FRANCIS <i>Harvard University, S.B.</i>	Weston	DILWORTH, EDWARD L.	Cambridge
<i>Harvard Business School, M.B.A.</i>		DI MARZIO, WILLIAM <i>Boston College, A.B.</i>	Plymouth
BOLES, ARTHUR L.	Brookline	DI NICOLA, ALBERT	East Boston
BONZAGNI, FRANK V.	West Roxbury	DONAHUE, MARY C.	Milton
BRINE, DONALD G.	West Newton	DONOVAN, PATRICK J.	Roxbury
BROWN, JOHN L.	Rosindale	DONOVAN, RAYMOND M.	Beverly
BROWN, MEYER	Chelsea	DONOVAN, RUSSELL B.	Medford
BRUSCHETTE, JOSEPHINE	East Boston	DOYLE, EDWARD F.	Medford
BRYANT, EDWARD C. <i>University of Maine, B.A.</i>	North Woburn	DOYLE, FREDERICK L., JR.	Arlington
BURNS, WALTER L., III	Lynn	DOYLE, JOHN P.	Cambridge
CAMERON, MABEL R.	Boston	DOYLE, KATHLEEN A.	Lynn
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CASE, EDWARD E.	Everett	DUNCAN, ARCHIBALD R.	Rosindale
CHISHOLM, WILLIAM P.	Lowell		

DUNPHY, JAMES M.	Dorchester	HOAR, GEORGE L.	Roxbury
EASTMOND, CASWALD J.	Boston	<i>Northeastern University, B.B.A.</i>	
<i>New York University</i>		HOFSTEIN, FRED L.	Quincy
ENNIS, JONAS	Roxbury	HOGAN, WILLIAM E.	W. Newton
<i>Boston College</i>		HOLLAND, PHILIP	Roslindale
EPSTEIN, IRVING J.	Dorchester	HOLLIS, NICHOLAS P.	Lowell
<i>University of Alabama</i>		HORTON, LLOYD T.	Boston
ERICKSON, WINNIFRED J.	Wollaston	<i>Boston University</i>	
FACE, RAYMOND G.	Hartford, Conn.	HOWIE, RUSSELL N.	Braintree
FAHERTY, JOHN J.	Wollaston	<i>Northeastern University</i>	
FAIRBURN, ROBERT S.	Cambridge	HOYT, IVAN K.	Newton
<i>Northeastern University</i>		HUNTER, S. ELIOT	Boston
FARIN, FRANK J.	New Bedford	HYDE, JOSEPH T.	Cambridge
FARRIS, RALPH W., JR.	Augusta, Me.	<i>Boston University</i>	
<i>University of Maine</i>		IANNELLI, NICHOLAS J.	Cambridge
FELDMAN, FANNIE	Lowell	ISRAEL, WILBUR F.	Marblehead
FERREN, JANE F.	Dorchester	<i>Massachusetts Institute of Technology</i>	
FIFE, ROBERT T.	Roxbury	JAMESON, CLAYTON G.	Beverly
FINN, JOHN F.	Boston	JENCUNAS, FRANK J.	Brockton
FINNEGAN, JOHN E.	Stoneham	JOHNSON, JOHN E.	Quincy
FITZGERALD, CLARENCE O.	Brockton	JOHNSON, MARTHA B.	Boston
FITZGERALD, MILDRED F.	Roxbury	<i>Radcliffe College</i>	
FLOWER, BERTRAM A.	Brookline	JOHNSON, ROBERT R.	Quincy
FOLEY, KATHERINE A.	Arlington	JOHNSON, VICTOR D.	Somerville
FOLGER, RICHARD S.	Roslindale	JONES, FRANK L., JR.	Milton
<i>Massachusetts State College, B. Sc.</i>		<i>Northeastern University</i>	
<i>Harvard University, A.M.</i>		JORDAN, ALBERT	Lynn
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<i>Harvard University</i>		KANE, JAMES F.	Chelsea
FORD, CHRISTOPHER C.	Cambridge	KANE, WILLIAM E.	East Boston
FOSTER, EUGENE W.	Dorchester	KARLL, MORRIS	Chelsea
POTI, SAMUEL J.	Cambridge	KARLSBERG, THEODORE	Dorchester
FREEDMAN, SAUL	Chelsea	KAVANAGH, ANNA G.	Roxbury
GALLANT, FRANCIS J.	Weymouth	KEELER, FREDERIC J.	Dorchester
GAMMONS, J. ELLIS	Weston	KELLEHER, JOHN E.	Salem
GARRITY, JAMES F.	Chelsea	KELLER, HAROLD L.	Newton Centre
<i>Boston College</i>		KELLEY, EUGENE P.	Cambridge
GARRO, VINCENT, JR.	Dorchester	KELLEY, GEORGE E.	East Braintree
<i>Harvard University</i>		KELLEY, JOHN J.	Somerville
GENTILE, MARSHALL E.	East Boston	KIERNAN, CORNELIUS F.	Lowell
GEOTHEGAN, JOSEPH M.	Brighton	KILROY, THOMAS M.	Brighton
GEORGE, ROBERT A.	Quincy	KOULOPOLOS, ARTHUR N.	Boston
GILLMAN, MORRIS	Dorchester	KRAMER, ALBERT	Dorchester
<i>Harvard University</i>		<i>Boston University</i>	
GILLIS, ALEXANDER J.	Boston	KRIVITSKY, HARRY	Chelsea
GISSLER, ERNEST L., JR.	Newton Centre	KURKJIAN, GEORGE	Boston
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GLOSSA, WILLIAM F.	Watertown	LAMB, KENNETH L.	Malden
GOLDEN, JOHN F.	Everett	LARKIN, THOMAS F.	Brookline
GOLUB, LEO	Lynn	LAROSA, SALVATORE	East Boston
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<i>Northeastern University</i>		LAWSON, HAROLD M.	Needham
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GREENBERG, DEBORAH	Dorchester	LEVINE, GEORGE D.	Roxbury
GROSSMAN, MIRIAM B.	New Bedford	<i>Boston University</i>	
HADDAD, GEORGE	Cambridge	LEVOVSKY, LOUIS	Everett
HALABIAN, MARTIN H.	Chelsea	LIBER, HYMAN	Boston
HALEY, EDWARD E.	Everett	LIGOTTI, CHARLES J.	East Boston
HALLETT, ROLAND F.	Quincy	LINDBERG, H. RICHARD	Lynn
HALLIDAY, ELIZABETH W.	Newtonville	<i>Northeastern University</i>	
<i>St. Petersburg Junior College</i>		LINDEN, JOHN J.	Hyde Park
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HARMON, BERNARD	Dorchester	LORENTE, MARIANO J.	Boston
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HARRINGTON, PHILIP J.	Dorchester	LOVOI, BENEDICT F.	Cambridge
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HAYES, JOHN J.	Boston	MCDADE, GRACE D.	Waban
HEALY, JOHN F.	Dorchester	MCFARLAND, FRED D.	Boston
<i>Harvard University</i>		MCINTOSH, JOSEPH C.	Lowell
HESSLSCHWERDT, JOHN J.	Jamaica Plain	MCINTOSH, EDWARD C.	East Weymouth
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		MACDOUGALL, LEO D.	Roslindale



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MELE, RALPH S.	Watertown	RUTSTEIN, OSCAR E.	Dorchester
MILOT, EDGAR H.	Brockton	SAAD, THOMAS R.	Brockton
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MITCHELL, ROBERT S.	Dorchester	SALON, SHEPARD L.	Mattapan
MOLLA, WILBUR P.	Dorchester	SAROTA, IRVING	Lynn
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MONROE, ROBERT J.	Brookline	<i>Clark University</i>	
<i>Northeastern University</i>		SCICCHITANI, CATHERINE M.	Revere
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MOORE, ROBERT L.	Lowell	SHADRAWY, BERNARD F.	Boston
MOREAU, EUGENE	Pawtucket, R. I.	SHADRAWY, JOHN M.	Boston
<i>Assumption College</i>		SHAPIRO, MELVIN I.	Allston
<i>Providence College, A.B.</i>		SHAUGHNESSY, JOHN J.	Cambridge
<i>Notre Dame, M.A.</i>		SHAW, ROBERT D.	Somerville
MORONG, DORIS A.	Boston	SHAW, ROBERT J.	Revere
MORRIS, C. BROOKS	Boston	SHEEHAN, PHILIP E.	East Weymouth
<i>Alabama College, B.A.</i>		SHERMAN, JOHN E.	Boston
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MORRISON, MIRIAM J.	Roxbury	SHIELDS, JAMES R.	E. Jaffrey, N. H.
MORRISSEY, BERTIE E.	Allston	SHOLIN, HYMAN	South Boston
MOSES, FERRIS N.	Boston	SHUMAN, IRVING M.	Dorchester
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MULHOLLAND, ALEXANDER B.	Ipswich	SLOCOMBE, RALPH E.	Attlington
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MURPHY, THOMAS B.	Lawrence	SMITH, WILLIAM L.	West Medford
NAUGHTON, ROGER J.	Dorchester	SNYDER, HERMAN H.	Dorchester
NELSON, ERIC A.	West Roxbury	SPEAR, EARLE T.	Brighton
<i>Boston University</i>		<i>Northeastern University</i>	
NELSON, JOHN A.	West Roxbury	SPECTOR, HAROLD S.	Boston
NICHOLSON, WILLIAM F.	Roxbury	STEVENSON, RICHARD M.	Brighton
NICOLORO, JAMES A., JR.	Arlington	STONEBURY, GRANT A., JR.	Malden
NIELSON, ROBERT N.	East Boston	SULLIVAN, ARTHUR C.	Lowell
NORMAN, ERNEST A.	Boston	SULLIVAN, EDWARD F.	Dorchester
NORRIS, CARL B.	Malden	SULLIVAN, JOSEPH D.	Revere
<i>Bowdoin College, B.A.</i>		SULLIVAN, PHILIP J.	Charlestown
NOVICK, EDWARD F.	Lowell	SWARTZ, EDWARD	Worcester
O'BRIEN, NICHOLAS A., JR.	Needham	SWEEDY, HENRY J.	Arlington
O'CONNOR, HERBERT J.	Brighton	THOMAS, RUTH A.	Boston
<i>Boston College, A.B.</i>		<i>Boston University</i>	
<i>Harvard University, M.B.A.</i>		THOMPSON, GEORGE H.	South Weymouth
O'DONNELL, JOSEPH E.	Dorchester	TIVNAN, ROBERT E.	Salem
O'LEARY, CHARLES	Roxbury	TOENSMEIER, CARL M.	Wollaston
OLIVA, VICTOR E.	Brighton	<i>College of Wooster, A.B.</i>	
<i>Northeastern University, B.B.A.</i>		TOMASELLO, ANTHONY S. J.	Jamaica Plain
OLSON, MARIE E.	Dorchester	<i>Harvard University, A.B.</i>	
O'NEIL, JOHN J.	Stoneham	TORIGIAN, VAHEN P.	Cambridge
ORCUTT, CHARLES B.	Somerville	TUCK, FRANCES L.	Dorchester
ORR, NATHANIEL A.	Cambridge	TUTTLE, RICHARD A.	Westford
<i>University of North Carolina, A.B.</i>		TWOHIG, WILLIAM D.	South Boston
<i>Harvard Business School</i>		VASIL, GEORGE S.	Roslindale
PARKER, MELVIN O.	South Boston	VERSTANDIG, DAVID T.	East Boston
PEREZ, FRANK	East Boston	VOZELLA, HARRY W.	Franklin
POWERS, ROBERT K.	Brockton	<i>Boston College</i>	
<i>Boston College</i>		WALLBANK, HENRY C.	West Roxbury
PRAGER, ISAAC	Dorchester	WALTER, FREDERICK H.	Watertown
PRANSKY, NATHAN J.	Winthrop	WATSON WARREN A.	Lowell
PROJANSKY, STANLEY	Revere	WAY, WILLIAM F.	Roslindale
RAVREBY, EDWARD N.	Brookline	WEBBER, PAUL B.	Bedford
REDMOND, ALBERT M.	Dorchester	WEISMAN, SAUL	Boston
REED, JAMES N.	West Roxbury	WEKSTEIN, ABRAHAM	Roxbury
REINHERZ, SAMUEL E.	Malden	WELANS, SIDNEY G.	Boston
<i>Boston University</i>		<i>Tufts College</i>	
RESTUCCIA, JOSEPH	Belmont	WELIN, FRANK B.	Wakefield
REYNOLDS, THOMAS L., JR.	Lowell	WHITMORE, WILLIAM D., 3RD	Winthrop
RICHARDS, CUTHBERT S., JR.	Brighton	<i>Harvard University</i>	
<i>Harvard University</i>		WILKINSON, FRANCES	Brookline
RICHARDS, ROY A.	Boston	WILLIAMS, GEORGE H.	Quincy
		WINCHESTER, LAURENCE R.	Allston



WOLFENDALE, CHARLES W.	Lynn	YOFFA, YANA	Boston
WOLFF, JOHN R.	Milton	YOUNG, DAVID F.	Boston
WOLLENHAUPT, JOHN H.	Revere	YOUNG, RHODA E.	Medford
WOOLWAY, FRANK H.	Newton Centre	ZANG, ERNEST	Cambridge
<i>Northeastern University</i>		ZESERSON, FREDERICK	Roxbury
WYMAN, CLARENCE E.	Boston	<i>Boston University</i>	
WYPLER, ALFRED R.	Boston		
<i>University of Wisconsin, B.S.</i>			

## CLASS OF 1942

ALEXANDER, ROBERT	Medford	GOLDEN, W. JEROME	Allston
ANNON, NORBERT C.	East Foxboro	GOOD, CHARLES J.	Cambridge
ANTHONY, JULIAN D.	Newton Centre	GORMLEY, WILLIAM T.	Chelsea
<i>Wesleyan College, B.S.</i>		GUARALDI, GEORGE L.	Somerville
ANTOINE, KENNETH F., JR.	Wollaston	GUILFOYLE, FRANK T.	Medford
<i>Nichols Junior College</i>		HARNEY, BERNARD P.	Cambridge
APSIT, ELFRIDA	Roslindale	HARRIS, HAROLD L.	Foxboro
BERMAN, HARRIET D.	Dorchester	<i>Brown University, Ph.B.</i>	
<i>Boston University</i>		HARRIS, WOODFORD Y.	Winchester
BOGARDUS, WILLIAM O.	Springfield	HAYDEN, CHARLES A.	Wellesley
BRATT, HAROLD A.	West Roxbury	<i>Boston College, A.B.</i>	
<i>Harvard Dental School, D.M.D.</i>		HIGGINS, LINCOLN C.	Lexington
BRENNAN, PAUL R.	Somerville	<i>Boston University</i>	
BRONSKI, WILLIAM J.	Amesbury	HOOD, GLADYS E.	Newtonville
BURKE, MARIE L.	Roslindale	<i>University of Chicago</i>	
<i>Boston Teacher's College</i>		HOSENFIELD, KARL F.	Jamaica Plain
BURMAN, DAVID A.	Roxbury	HOWE, ELLIOT E.	Boston
BURNS, IRVING C.	Chelsea	HYMAN, DEXTER J.	Brookline
<i>Holy Cross College, A.B.</i>		<i>Boston University</i>	
CARLETON, FRANK N.	Canton	JAYNE, HILTON	Elmira, N. Y.
<i>Dartmouth College, A.B.</i>		<i>Ohio University</i>	
CARPENTER, IRVING F., JR.	West Newton	<i>Cornell University, A.B.</i>	
CHIULLI, MARY A.	Malden	JELLISON, JEROME G.	Somerville
CHRISTOPHER, JAMES H., JR.	Riverside, R. I.	KASIAN, AARON	Lynn
<i>Brown University, Sc.B.</i>		KATZEFF, JULIAN H.	Brookline
CHURCHILL, EUGENIA O.	Cambridge	<i>Massachusetts State College, B.S.</i>	
<i>Boston University, B.S. in Ed.</i>		KAUFMAN, IRVING	Malden
CONNELLY, AGNES I.	West Newton	KELLEY, WILLIAM P., JR.	East Braintree
CORBETT, EDWARD G.	Brighton	KELLEY, WILLIAM J.	Jamaica Plain
CORCORAN, SHANLEY F.	Brockton	KENNEY, JOHN F.	Boston
<i>Georgetown University, Ph.B.</i>		KILBRIDE, ADRIAN E.	Winthrop
COURY, PETER T.	Boston	KILROY, EDWARD L.	Jamaica Plain
<i>Northeastern University</i>		KIMBALL, JOHN H.	Malden
CRAIG, JOHN D.	Cambridge	<i>Harvard University, A.B.</i>	
<i>Holy Cross</i>		KING, WILLIAM P.	Boston
CRAVEN, JOHN J.	Roxbury	KRAMER, PAULINE	Cambridge
<i>U. S. Naval Academy</i>		<i>Boston University</i>	
CROSBY, THOMAS J.	Roxbury	KUTTERUF, ROBERT H.	Brighton
DANIEL, JOHN V.	Winthrop	<i>Armour Institute of Technology, B.S.</i>	
DAVIES, E. ALFRED	Needham	LANCIAN, THOMAS C.	Everett
<i>New York University, B.C.S.</i>		<i>Holy Cross College</i>	
<i>Boston University, M.B.A.</i>		LANZO, PHILIP A.	Waltham
DEVIN, EDWARD T.	Dorchester	LAURIAI, GEORGE B.	Brookline
<i>Harvard University</i>		<i>Harvard University, A.B.</i>	
DIGGS, ALVIN O.	Winchester	<i>Harvard Business School</i>	
DIRKSMEIER, PAUL V.	Dorchester	LAWRENCE, HELENE P.	Boston
<i>Boston University</i>		LEFTIN, ALICE R.	Beverly
DWYER, WILLIAM F.	Weymouth	LEVI, HARRY, JR.	Brookline
ENGELS, RICHARD C.	Milton	<i>Boston University, B.S. in B.A.</i>	
FITZWILLIAM, FRANK J.	Boston	<i>University of Pennsylvania</i>	
FLANZBAUM, LESTER	Winthrop	LINCOLN, WILLIAM A.	Brookline
<i>University of New Hampshire, B.A.</i>		<i>Harvard University, A.B.</i>	
FORTE, ALMA L.	Belmont	LYDON, WILLIAM L.	Roxbury
<i>Boston University</i>		MCCAFFREY, MARGURITA	Cambridge
FORTI, ANTHONY	Medford	<i>Radcliffe College, A.B.</i>	
<i>Northeastern University, B.B.A.</i>		MCCORMACK, MARSHALL H.	Malden
FRIEDMAN, NICHOLAS	Newton Centre	MCCULLOUGH, WILLIAM E.	Wellesley
<i>Harvard University, A.B.</i>		MCCUSKER, HUGH J.	Woburn
GAGE, JOSEPH A.	Boston	<i>St. Joseph's College</i>	
<i>Bowdoin College, A.B.</i>		MCDABE, JOHN N.	Dorchester
GAFFNEY, JOHN T.	Roxbury	<i>Boston University</i>	
GALVIN, JOHN THOMAS	Jamaica Plain	MACDONALD, MALCOLM	East Bridgewater
<i>Boston College, A.B.</i>		MACFARLANE, THOMAS M., JR.	Jamaica Plain
GAMBINO, BENJAMIN J.	East Boston	<i>Harvard University, A.B.</i>	
<i>Boston College, A.B.</i>		MACK, ALFRED W.	Framingham
GETZ, JAMES W.	Jamaica Plain	MACKINNON, EDWARD F.	Brookline
GILL, MARGARET L.	Arlington	<i>Northeastern University</i>	
GLYNN, JOHN J.	Jamaica Plain		
GOLDBERG, JEAN E.	Roxbury		

MACMILLAN, DOROTHEA L. <i>Radcliffe College, A.B.</i>	Lynn	SANTINO, MARY F.	Revere
MACURDA, DONALD B. <i>Bowdoin College</i>	Brighton	SAWYER, ALAN F. <i>DePauw University</i>	Saugus
MAHONEY, EDWARD F.	Cambridge	SCAFIDI, ANTHONY R.	Melrose
MANN, IRVING Z. <i>Brown University</i>	Brookline	SHAPIRO, HYMAN L. <i>Boston University</i>	Chelsea
MARGET, LEON A. <i>Harvard University, A.B.</i>	Newton	SHEPARD, EDWARD M. <i>Amherst College</i>	Boston
MILLER, DAVID <i>Boston University, A.B.</i>	Mattapan	SHERMAN, MANUEL	Mattapan
<i>Boston Teacher's College, Ed.M.</i>		SHERMAN, ROBERT J.	Boston
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<i>Harvard University</i>		SIMPSON, FRANK	New Bedford
MOLDAWAN, MORRIS H. <i>Yale University, A.B.</i>	Framingham	SNYDER, NORMA E. <i>Boston University</i>	Arlington
MOONEY, THOMAS P.	Cambridge	STEINMETZ, MILDRED <i>Emmanuel College</i>	Brookline
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MUTHER, LORENZ, JR. <i>Harvard University, A.B.</i>	Newton Centre	THOMPSON, CAROLYN C.	Winchester
<i>Boston University</i>		THOMPSON, FRANCIS J.	Salem
NADOLSKI, JOSEPH B. <i>Boston University, B.S. in B.A.</i>	Dedham	THOROGOOD, BARTLETT K. <i>Harvard University, A.B.</i>	Waban
NICHOLLS, HENRY L.	Cambridge	<i>Boston University</i>	
NORRIS, JOHN G.	Brookline	TICK, WILLIAM <i>Boston University</i>	Roxbury
O'BRIEN, EDMUND J. <i>Northeastern University</i>	East Boston	TOURVILLE, HENRY MCC. <i>University of Pittsburg</i>	Dedham
O'CONNELL, ALBERT L.	Dorchester	<i>Duquesne University</i>	
PALMER, WALTER S. <i>Williams College, A.B.</i>	Quincy	TYLER, EARL C. <i>Harvard University, A.B.</i>	Boston
<i>University of Pennsylvania, M.B.A.</i>		WALPOLE, KINLOCH C. <i>U. S. Naval Academy</i>	Boston
PATEY, RICHARD L. <i>University of Pennsylvania, B.S.</i>	Newtonville	WEILER, GEORGE H. <i>Yale University, B.S.</i>	New York, N. Y.
PEOPLES, CHARLES F. <i>Northeastern University, B.S. in C.E.</i>	Medford	WEINBERGER, SHIRLEE E.	Dorchester
PETERS, FREDERICK I.	Arlington	WEINER, LEONARD A.	Roxbury
PITT, ALBERT T. <i>Boston University, A.B.</i>	Waltham	WELLWOOD, EMMETT J.	Taunton
PLATT, NORMAN	Jamaica Plain	WEST, PAUL J.	Roxbury
POPE, SETH S.	Jamaica Plain	WHELTON, WILLIAM A. <i>Boston University, B.S. in B.A.</i>	Jamaica Plain
RICHARDS, RALPH J.	Dorchester	WHITEHEAD, CHARLES W.	South Boston
SALVO, ALBERT	Dorchester	WILLIAMS, F. PAUL	Beverly
SALZER, ERWIN <i>Technische Hochschule Darmstadt, Sc.D.</i>	Brookline	WOOD, JAMES A. E. <i>Harvard University, A.B.</i>	Riverton, N. J.

## REGISTERED FROM OTHER DEPARTMENTS OF THE UNIVERSITY

DOYLE, FRANK J.	South Boston	RAMEY, BERNARD, JR.	Rosindale
JACKSON, IRENE C.	Boston	SMITH, LESTER P.	Boston
KESSEL, ABRAHAM	Revere		

## CLASS OF 1941—DAY DIVISION

CONLEY, JOHN B.	Malden	LESMERISES, RENE O.	Manchester, N. H.
DOWNES, INA M. <i>Boston University</i>	Lexington	<i>St. Anselm's College, A.B.</i>	
FULLER, REV. LUTHER M. <i>Boston University, B.S.</i>	Chelsea	LYDON, JAMES E. <i>Boston College, A.B.</i>	Boston
<i>Boston University, A.M.</i>		MCDERMOTT, THOMAS L. <i>Boston College, A.B.</i>	Jamaica Plain
<i>Boston University, Ed.M.</i>		MACOMBER, JOHN A. <i>Guilford College</i>	Westport
<i>Gordon College, S.T.M.</i>		<i>Middlebury College, A.B.</i>	
<i>Gordon College, M.R.E.</i>		MOLICA, ROBERT L. <i>Northeastern University</i>	Boston
<i>Tufts College, S.T.B.</i>		MORRIS, CHARLES VANWIE <i>Cornell University, D.V.M.</i>	Belmont
<i>New England Conservatory, B.M.</i>		RICE, AGNES M.	Brockton
HAINER, HERBERT M., JR. <i>Northeastern University</i>	Haverhill	SANDERSON, RICHARD S. <i>Boston College, A.B.</i>	Boston
KRINSKY, JOSEPH <i>Massachusetts State College</i>	Dorchester	STILLMAN, HARRY <i>Northeastern University</i>	Salem
LACKEY, WILLIAM S. <i>Bowdoin College</i>	Cambridge		
<i>University of New Hampshire</i>			

## STATISTICAL SUMMARY OF STUDENTS

Graduate Students	20
Class of 1939	164
Class of 1940	219
Class of 1941	
Day Division	15
Evening Division	344
Class of 1942	144
Registered from other departments of the University	5
	<hr/>
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# NORTHEASTERN UNIVERSITY

## College of Liberal Arts

Offers a broad program of college subjects serving as a foundation for the understanding of modern culture, social relations, and technical achievement. Varied opportunities available for vocational specialization. Degree: Bachelor of Science or Bachelor of Arts.

## College of Engineering

Offers curricula in Civil, Mechanical (with Diesel, Air-Conditioning and Aeronautical options), Electrical, Chemical, Industrial Engineering, and Engineering Administration. Class room study is supplemented by experiment and research in well-equipped laboratories. Degree: Bachelor of Science in the professional field of specialization.

## College of Business Administration

Offers three curricula: Accounting, Banking and Finance, and Business Management. Each curriculum represents in itself a broad survey of business technique, differing from the others chiefly in emphasis. Degree: Bachelor of Science in Business Administration.

---

## School of Law

Offers day and evening undergraduate programs admitting those who present a minimum of two years of college work, each program leading to the degree of Bachelor of Laws. Also graduate program in the evening leading to the degree of Master of Laws. Co-educational.

## School of Business

Offers curricula through evening classes in Accounting, Management, Law and Business Management, and Engineering and Business leading to the degree of Bachelor of Business Administration in specified fields or the Bachelor of Commercial Science in Law and Business Management. Preparation for C.P.A. Examinations. Shorter programs may be arranged. Co-educational.

## Evening Division of the College of Liberal Arts

Offers a three-year evening program equivalent in hours to one-half of the requirement for the A.B. or B.S. degree. Provides general education and preparation for admission to the School of Law. Associate in Arts title conferred. Co-educational.

---

The Colleges of Liberal Arts, Engineering, and Business Administration offer day programs for men only and are conducted on the co-operative plan. After the freshman year students may alternate their periods of study with periods of work in the employ of business or industrial concerns at ten-week intervals. Under this plan they gain valuable experience and earn a large part of their college expenses.

---

In addition to the above schools the University has affiliated with it and conducts: the Lincoln Technical Institute offering, through evening classes, courses of junior college grade in various fields of engineering leading to the title of Associate in Engineering; and the Lincoln Preparatory School, an evening school preparing for college entrance and offering other standard high school programs.

---

For further information regarding any of the above schools, address

## NORTHEASTERN UNIVERSITY

360 Huntington Avenue, Boston, Massachusetts

Telephone: KENmore 5800







NORTHEASTERN UNIVERSITY

YEAR

BOSTON

1939-1940

SCHOOL OF BUSINESS

EVENING SESSIONS

## OFFICE HOURS

To JUNE 19, 1939

Daily (*except Saturdays and Sundays*), 8.45 A.M.—9.30 P.M.  
Saturdays, 8.45 A.M.—1.00 P.M.

JUNE 20, 1939 — AUGUST 15, 1939

Daily (*except Saturdays and Sundays*), 9.00 A.M.—4.00 P.M.  
Saturdays, 9.00 A.M.—12.00 NOON.

AUGUST 16, 1939 — JUNE 18, 1940

Daily (*except Saturdays and Sundays*), 8.45 A.M.—9.30 P.M.  
Saturdays, 8.45 A.M.—12.00 NOON through September 2.  
8.45 A.M.— 4.00 P.M. September 9, 16, 23, and 30.  
8.45 A.M.— 1.00 P.M. October 7—June 17.

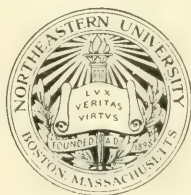
*Address Communications to*

## NORTHEASTERN UNIVERSITY SCHOOL OF BUSINESS

360 HUNTINGTON AVENUE, BOSTON, MASS.

TELEPHONE: KENMORE 5800

NORTHEASTERN UNIVERSITY  
EVENING DIVISION  
SCHOOL OF BUSINESS



32nd Year  
1939-1940

*A DISTINCTIVE SCHOOL OF BUSINESS  
providing opportunities for men and women to receive advanced  
training in Business during convenient Evening Hours*



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# Northeastern University

## *Administrative Organization*

### THE NORTHEASTERN UNIVERSITY CORPORATION

ROBERT GRAY DODGE  
*Chairman*

FRANK LINCOLN RICHARDSON  
*Vice-Chairman*

FRANK PALMER SPEARE  
*President of the University*

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*Secretary and Treasurer*

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WILMAN EDWARD ADAMS  
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EARL D. BABST  
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ARTHUR ATWOOD BALLANTINE  
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THOMAS PRINCE BEAL  
FARWELL GREGG BEMIS  
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WILLIAM CONVERSE CHICK  
EVERETT AVERY CHURCHILL  
PAUL FOSTER CLARK  
SEARS B. CONDIT  
ALBERT MORTON CREIGHTON  
WILLIAM JAMES DAVIDSON  
JAMES DEAN  
HENRY STURGIS DENNISON  
PAUL AUGUSTUS DRAPER  
CHARLES FRANCIS EATON  
CARL STEPHENS ELL  
JOSEPH BUELL ELY  
TIMOTHY JAMES FALVEY  
FREDERIC HAROLD FAY  
ALLAN FORBES  
EDWARD J. FROST  
FRANKLIN WILE GANSE  
GEORGE PEABODY GARDNER, JR.  
HARVEY DOW GIBSON  
MERRILL GRISWOLD  
HENRY INGRAHAM HARRIMAN  
CHANDLER HOVEY

HOWARD MUNSON HUBBARD  
ARTHUR STODDARD JOHNSON  
HENRY CAMPBELL JONES, JR.  
HALFDAN LEE  
EDWARD ABBOTT MACMASTER  
JOHN RUSSELL MACOMBER  
JOSEPH PATRICK MANNING  
HAROLD FRANCIS MASON  
HUGH DEAN McLELLAN  
IRVING EDWIN MOULTROP  
CLARENCE LUCIAN NEWTON  
OLAF OLSEN  
GEORGE EDWIN PIERCE  
ROGER PIERCE  
MATTHEW POROSKY  
FREDERICK SANFORD PRATT  
HARRY WENDELL PROUT  
SIDNEY RABINOVITZ  
JAMES LORIN RICHARDS  
CHARLES MILTON ROGERSON  
ROBERT BILLINGS RUGG  
LEVERETT SALTONSTALL  
RUSSELL HENRY STAFFORD  
FRANCIS ROBERT CARNEGIE STEEL  
CHARLES STETSON  
ROBERT TREAT PAINE STORER  
FRANK HORACE STUART  
EDWARD WATSON SUPPLE  
JOHN EDWIN TOULMIN  
BAYARD TUCKERMAN, JR.  
ELIOT WADSWORTH  
EDWIN SIBLEY WEBSTER

### THE EXECUTIVE COUNCIL

FRANK PALMER SPEARE, M.H., LL.D.  
*President of the University*

GALEN DAVID LIGHT, A.B.  
*Secretary and Treasurer of the University*

CARL STEPHENS ELL, A.B., M.S., Ed.M., Sc.D.  
*Vice-President of the University*

EVERETT AVERY CHURCHILL, A.B., Ed.D.  
*Vice-President of the University*

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ZELOTES WOOD COOMBS  
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ERNEST LEROY HUNT  
VERNON AUGUSTUS JONES  
ROBERT LINDO MOORE  
ALFRED ERNEST RANKIN  
JOHN RICHARDSON

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*Board of Governors*

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HARLEY BAKER GOODRICH  
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*Educational Committee*

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WILLIAM COVELL ELLIS  
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PAUL REVERE LADD  
NORMAN HASKELL MAYO  
CHESTER TOTTEM MOREY  
WILLIAM WASHBURN MOSS  
GREN OREN PIERREL

CLARENCE EDGAR SHERMAN

# NORTHEASTERN UNIVERSITY AND AFFILIATED SCHOOLS

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## *Statistical Summary — 1937-1938*

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	<i>Administrative Officers and Faculties</i>	<i>Students</i>
I. General Administration	8	
II. Northeastern University		
College of Liberal Arts	79	1,905
College of Engineering		
College of Business Administration		
School of Law	46*	1,949*
School of Business	101*	1,531*
III. Schools affiliated with and conducted by Northeastern University		
Lincoln Schools	52	1,048
Huntington Day School for Boys		
Regular Term	16	197
Summer Term	9	122
	<hr/>	<hr/>
Total	311	6,752
Less Duplicates	39	460
	<hr/>	<hr/>
Net Total	272	6,292

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\* These figures include the administrative officers, faculties, and students of the Divisions of the University in Worcester, Springfield, and Providence.

# School of Business

## *Calendar of Evening Sessions*

Class sessions which fall on holidays are made up at the end of the course or as announced.

### 1939

September	1- 8	Examinations for Removal of Conditions and Advanced Standing in Springfield.
September	11-15	Examinations for Removal of Conditions and Advanced Standing in Boston, Worcester, and Providence.
September	11-15	Upper classes begin in Springfield.
September	18-22	Upper classes begin in Boston, Worcester, and Providence.
September	25-29	Freshman classes begin in Boston and the Divisions.
October	12	Legal holiday (no classes in Massachusetts).
November	30	Legal holiday (no classes).
December	22	Last class session before Christmas recess in Boston and the Divisions.

### 1940

January	2	First class session after Christmas recess in Boston, Worcester, and Providence.
January	8	First class session after Christmas recess in Springfield.
January	22-26	Second semester classes begin in Boston, Worcester, and Providence.
February	22	Legal holiday (no classes).
March	15	Last date for the submission of theses.
April	19	Legal holiday (no classes in Massachusetts).
May	1	Last date for filing application for Degrees and for the payment of the graduation fee.
May	1-31	Final examination period.
May	30	Legal holiday (no classes).
June	2	Baccalaureate Services at Springfield.
June	5	Commencement Exercises at Springfield.
June	9	Baccalaureate Services at Worcester.
June	12	Commencement Exercises at Worcester.
June	16	Baccalaureate Services at Boston, and Providence.
June	18	Commencement Exercises at Boston.
June	21	Commencement Exercises at Providence.

# Northeastern University

## *Purpose and Program*

**N**ORTHEASTERN UNIVERSITY from the outset has been developed around the simple yet practical purpose of meeting human needs in distinctive and serviceable ways, maintaining flexibility in program and organization in order that constant adjustment could be made to changing needs.

Pursuant to this purpose, the University has evolved a definite plan of education which embraces primarily Co-operative Education by day and Adult Education by night. So far as the New England States are concerned, Northeastern University is the only institution whose day colleges, other than the School of Law, are conducted under the Co-operative Plan. The several schools and programs of the University are operated either under the name "Northeastern University" or by its affiliated schools, the Lincoln Schools, and The Huntington Day School for Boys. The following is a brief outline of the principal types of educational opportunities offered.

**1** In the field of Co-operative Education there are three day colleges — the College of Liberal Arts, the College of Engineering, and the College of Business Administration. All of these colleges offer five-year curricula. The College of Liberal Arts offers majors in the usual fields of the arts and the sciences leading to the degrees of Bachelor of Arts and Bachelor of Science. The College of Engineering, one of the largest engineering colleges in the United States, has curricula in Civil, Mechanical (with Diesel, Air-Conditioning, and Aeronautical options), Electrical, Chemical, and Industrial Engineering. The College of Business Administration has curricula in Accounting, Banking and Finance, and Business Management. The College of Engineering and the

College of Business Administration confer the degree of Bachelor of Science with specification indicating the field of specialization. The Co-operative Plan, under which all of these day colleges operate, enables the student to alternate regular periods of classroom instruction with supervised employment in an industrial or commercial position, thus combining theory and practice in an exceedingly effective manner. Apart from the educational advantages of the Co-operative Plan is the opportunity for self-support while the student is pursuing his studies at Northeastern University. During the co-operative periods, students not only gain experience but are also paid for their services. Approximately three hundred business and industrial concerns co-operate with Northeastern University in making this program effective.

- 2** The School of Law conducts both a day and an evening undergraduate program which prepares for admission to the bar and for the practice of the law and leads to the degree of Bachelor of Laws. It also conducts a graduate program in the evening leading to the degree of Master of Laws.
- 3** The Adult Education Program has been developed in the evening work of the School of Law as indicated above, in the School of Business, and in the Evening Division of the College of Liberal Arts. The School of Business has curricula in Management, Accounting, Law and Business Management, and Engineering and Business. This School awards the Bachelor of Business Administration degree with specification and the Bachelor of Commercial Science degree in Law and Business



Management. The Evening Division of the College of Liberal Arts offers an evening program the equivalent in hours to two years of college work, providing a general education and preparation for admission to the School of Law. The title of Associate in Arts is conferred upon those who complete this program.

In order that larger groups of men and women might be served through its evening schools, Northeastern University operates divisions of the School of Law and the School of Business in co-operation with the Young Men's Christian Associations in Worcester and Springfield and of the School of Business in co-operation with the Providence Young Men's Christian Association. With the establishment of the divisions, thoroughgoing methods of supervision were instituted and have been consistently followed and improved, with the result that the divisional work is conducted upon a highly efficient basis.

The Adult Education Program has also been developed through the Lincoln Schools, which are affiliated with and conducted by Northeastern University. The classes in these schools are held at convenient evening hours. The Lincoln Technical Institute offers curricula upon a junior college level in various phases of engineering leading to the title of Associate in Engineering; whereas the Lincoln Preparatory School, accredited by the New England College Entrance Certificate Board, prepares students for admission to college and offers other standard high school programs.

The Huntington Day School for Boys, also affiliated with and conducted by Northeastern University, is the outgrowth of a demand in the city of

Boston for an urban preparatory school with high educational standards which would furnish thorough preparation for admission to the leading colleges and universities. While easily accessible to the various sections of Boston and to the suburbs, it has the facilities of a country day school and offers a country day school program. This School is one of the leading preparatory schools of the country.

## ORGANIZATION

Northeastern University is incorporated as a philanthropic institution under the General Laws of Massachusetts. The State Legislature, by special enactment, has given the University general degree granting powers.

The Corporation of Northeastern University consists of men who occupy responsible positions in business and the professions. This Corporation elects from its membership a Board of Trustees in whom the control of the institution is vested. The Board of Trustees has four standing committees: (a) an Executive Committee which serves as an Ad Interim Committee between the regular meetings of the Board of Trustees and has general supervision of the financial and educational policies of the University; (b) a Committee on Housing which has general supervision over the buildings and equipment of the University; (c) a Committee on Funds and Investments which has the responsibility of administering the funds of the University; (d) a Development Committee which is concerned with furthering the development plans of the University.

The Board of Trustees has also created through its by-laws, an Executive Council, consisting of the President, the Secretary, and the two Vice-Presidents of the University. To the Executive Council the Board has allocated broad powers.

## LOCATION OF UNIVERSITY BUILDINGS

Northeastern University is located in Boston, a city which is rich in educational and cultural opportunities. The University center is on Huntington Avenue just beyond Massachusetts Avenue and opposite the Boston Opera House. Here on a six and one-half acre campus are located the educational buildings of the University except that of the School of Law. The classes of the Evening School of Business are all held at the University center on Huntington Avenue.

### WEST BUILDING

The West Building at 360 Huntington Avenue contains over one hundred thousand square feet of floor space devoted to administrative and instructional purposes. On the first floor are the general administrative offices of the University. The University bookstore, the "Husky Hut" and the student checkroom are located in the basement. There are three large lecture halls and numerous classrooms and laboratories. The offices of the Evening Division are located on the first floor.

### EAST BUILDING

The East Building of the University is the educational wing of the Huntington Avenue Branch of the Boston Young Men's Christian Association. The library, classrooms, certain laboratories, and the gymnasium are located in this building.

### SOUTH BUILDING

The South Building of the University contains certain laboratories, a large lecture hall, and several classrooms.

### LAW SCHOOL BUILDING

The Law School Building, located at 47 Mt. Vernon Street, within sight of the State House, contains administrative offices, a library, classrooms, student

lounges, and other facilities. It is utilized exclusively for Law School work.

### TRANSPORTATION

The University center is easily reached from the various railroad stations and from all points on the Boston Elevated System. Ample parking space is available for the use of students coming by automobile.

### WORCESTER DIVISION

The Worcester Division is located in the Worcester Y.M.C.A. Building at 766 Main Street, and in the new Alden Building facing on Murray Avenue, a five-minute walk south from the City Hall.

The School is easily accessible from all parts of the city and is within easy walking distance of both the Union Station and the bus and interurban terminals. Excellent bus service is maintained to all suburban points. Student rates may be obtained on practically all of these lines.

### SPRINGFIELD DIVISION

Northeastern University, Springfield Division, is located two streets east of Main on Chestnut, corner of Hillman—a three-minute walk from Main via Hillman. It is reached from the Union Station by a five-minute walk south along Dwight to Hillman to Chestnut; and a three-minute walk north along Chestnut from the Public Library on State Street.

### PROVIDENCE DIVISION

The Providence Division is located in the Y. M. C. A. Building at 160 Broad Street. This location is about an eight-minute walk from the center of the city. Adequate parking facilities are available for automobiles. The following car and bus lines pass the building: Broad Street, Elmwood Avenue, Reservoir Avenue, Pontiac Avenue, Auburn and Eden Park, and East Greenwich.

# School of Business

## Administrative Organization

### GENERAL OFFICERS OF ADMINISTRATION

FRANK PALMER SPEARE, M.H., LL.D., *President of the University*  
GALEN DAVID LIGHT, A.B., *Secretary and Treasurer of the University*  
EVERETT AVERY CHURCHILL, A.B., Ed.D., *Vice-President of the University*  
RUSSELL WHITNEY, B.S., LL.B., *Dean*

### LOCAL OFFICERS OF ADMINISTRATION

#### BOSTON

RUSSELL WHITNEY, B.S., LL.B., *Dean*  
EBEN OSWELL SMITH, B.S., *Registrar*  
KENNETH STEVENSON, B.C.S., *Bursar*  
MYRA WHITE, *Librarian*  
MARY B. FOOR, *Manager of the Bookstore*

#### PROVIDENCE DIVISION

LUTHER NEWTON HAYES, B.S., M.A., *Director*  
CARL WILLIAM CHRISTIANSEN, B.C.S., C.P.A.,  
*Associate Dean*  
JOHN EDWARD CANDELET, B.S., A.M., M.B.A.,  
*Counselor*

### SECRETARIAL AND OFFICE STAFF

#### BOSTON

DORIS CLARK TOWNE, *Secretary to the Dean*  
HELEN MARGARET STODDARD, *Recorder*  
ELIZABETH BRECHEN HUNT, *Secretary to the Registrar*  
ELIN VICTORIA PETERSON, *Secretary to the Vice-President*  
GRACE HEWETT WATKINS, B.S., *Assistant Librarian*  
LUCY GORHAM HAGER, B.S., *Assistant Librarian*  
FLORENCE ELSIE AVELLAR, *Secretary to the Treasurer*  
MABEL ELLEN BEAN, *Secretary to the Bursar*  
VIRGINIA CUSHING DARLING, *General Offices of the University*  
THELMA GERTRUDE DUNN, *Bookkeeper, Treasurer's Office*  
DAISY MILNE EVERETT, *Bookkeeper, Treasurer's Office*  
MARJORIE DAYTON HOLCOMB, *Secretary to the President*  
HELEN LOUISE KOLDERUP, *Cashier*

#### WORCESTER DIVISION

WILLIAM ALBERT LOTZ, A.B., M.A., *Director*  
CHARLES EDWIN HUTCHINS, LL.B., *Counselor to Students*

#### SPRINGFIELD DIVISION

JOHN DOANE CHURCHILL, A.M., *Director*  
ROBERT RICHARDSON EMERSON, B.C.S., *Treasurer*  
RALPH LORENZO BOWEN, B.C.S., B.S. in Ed.,  
*Associate Director and Bursar*  
MAURICE MERTON BLODGETT, A.B., *Assistant Director*  
GUY DOLPHUS MILLER, A.B., Ed.M., C.P.A.,  
*Associate Dean*

ALYCE ANN NICHOLS, *Bookkeeper, Treasurer's Office*  
ELLEN WHITEHOUSE PARKINSON, *Bookkeeper, Evening Division*

#### WORCESTER DIVISION

MARION WALLACE PORTER, A.B., *Registrar*  
IRMA MCALLISTER BROWN, *Secretary to the Director*  
HELEN ELISSA LINDSTROM, *Bursar*  
LAWRENCE JAMES GOULDEN, B.B.A., *Administrative Assistant*  
ALFRED SAWYER HODGKINS, A.B., M.A., *Administrative Assistant*

#### SPRINGFIELD DIVISION

CAROLINE EDITH BERGMANN, B.C.S., *Registrar*  
VIOLET LILLIAN DESILETS, *Secretary to the Director and Recorder*

#### PROVIDENCE DIVISION

AVIS STOKES MACINTOSH, *Secretary to the Director and Registrar*

### ADMINISTRATIVE COMMITTEE

EVERETT AVERY CHURCHILL, <i>Chairman</i>	
EBEN OSWELL SMITH, <i>Secretary</i>	JAMES WALLACE LEES
LUTHER NEWTON HAYES	SYDNEY KENNETH SKOLFIELD
WILLIAM ALBERT LOTZ	

### COLLEGIATE SCHOOLS COMMITTEE

EVERETT AVERY CHURCHILL, <i>Chairman</i>	
SYDNEY KENNETH SKOLFIELD	EBEN OSWELL SMITH
RUSSELL WHITNEY	

# School of Business

## *The Background of an Institution*

**T**HIRTY-TWO YEARS ago, in March of 1907, the first undergraduate evening school of business in New England was organized. This was the beginning of Northeastern University School of Business, a pioneer endeavor to bridge an existing gap in business and professional education. Four years later, the School was authorized by the Massachusetts Legislature to grant university degrees to its graduates.

### **PURPOSE**

Now, just as at the start, the school seeks first to determine what business needs in its personnel, and then to supply properly trained men and women who can fulfill those needs.

The training of a student at Northeastern has always been conducted so that a graduate receives not only a B.B.A. or a B.C.S. degree, but an immediately applicable vocational training equipping him to fill a better position in some one business activity. For his future, he has the advantage of a thorough background of business methods and an appreciation of the problems of management, which, if properly used, may lead to advancement and executive responsibilities.

Such a well-rounded preparation also enables a Northeastern graduate to achieve the higher social standing enjoyed by college and university graduates.

### **ADMINISTRATIVE POLICY**

The School of Business was founded to serve those who have only evening hours free for study—a special field, limited to the education of the person who has permanently left day school and gone to work. The Northeastern University student is an adult, usually more mature than the student of a day school. He is in direct touch with business and is expected to take an active part in his own supervised training. The

constant effort of the administrative and teaching staff is toward more effective means of suiting their educational service to the individual evening student.

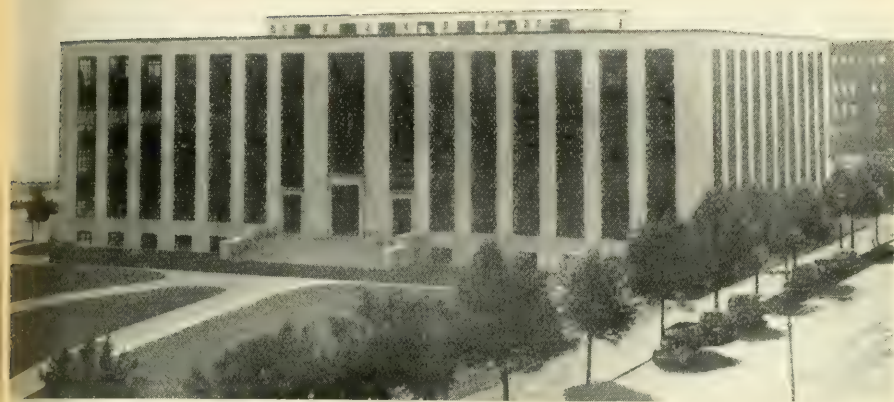
A program carefully adapted to the needs of the student, and the proper guidance of his time and effort in class group and study, call for high standards in administration. The administrative officers of Northeastern University function solely to help the student get the most value from his course of training. The Dean of the School, the Educational Directors in the Divisions at Worcester, Springfield, and Providence, the Registrars and other officers are available at all times to assist students. Those who desire any sort of advice or guidance in any part of their school work will find the officers of the School always ready to do their utmost.

### **METHODS OF INSTRUCTION**

Because the evening student is daily in contact with business, his training logically should be in actual business problems. The School's instruction in nearly all courses is by the problem method. In a few introductory or survey courses the lecture and text book method is used in combination with the problem method. Most of the teaching staff are active business men whose practical experiences adequately fit them to carry through this type of instruction. Under such a method there is a more definite individual gain, for the theories of business are faced, so to speak, in their work clothes, and the student's vivid knowledge of economic principles is accompanied by the rise of a keener analytical interest in his business surroundings.

Business demands more than knowledge; it demands quick applications of that knowledge. A Northeastern graduate learns to think and act more independently and soundly when that demand is made of him.





*Most of the School of Business classes meet in this new University building which was opened for occupancy in September, 1938.*

Cases and tests are frequently supplemented by stimulating lectures and class group discussions. Written reports and examinations serve only that the student may measure his own progress or as indications to the instructor of his success in helping the student to a fuller understanding of his subject.

### **SPECIAL VOCATIONAL GUIDANCE**

Northeastern University School of Business does not end its educational responsibilities in merely providing courses of study. Its individual students are helped to determine their own abilities and the field of work in which those abilities will give them the greatest chance of advancement. When the student's interest has been established, the school then assists the student in fulfilling the requirements for success in his chosen field.

A student's personal guidance in this respect is not judged as completed in his first year. Rather it is a constant process continually modified to meet the changing conditions of business life during his entire term. The administration and faculty have in the last two years worked out and put into effect new plans in a broader effort to—

- 1 Acquaint students with various fields of business activity so that they may make more rational choices of a vocational field in which to specialize.
- 2 Aid students in the choice of specific vocational objectives within their chosen fields.
- 3 Provide facilities for study of vocational and specific job requirements, as well as the opportunities and the steps necessary to achieve progress.
- 4 Co-ordinate the student's education more closely to his vocational interests.



### STAFF OF INSTRUCTION

The teaching staff of the School in Boston and the Divisions is recruited from business and professional leaders of New England business. The instructors are college-trained men who have proved their ability in their various fields of specialization. They are selected on the basis of their ability to convey knowledge to others in an interesting, inspiring, and effective manner. They are also chosen for the breadth of their training and experience. Their teaching is a work of enthusiasm freshened each evening by contact with those who are seeking seriously for knowledge, skill, and attitudes that will contribute to success.

While business essentials are stressed, cultural and ethical values are by no means neglected. The ability to think and judge independently usually results in cultural development. But the school has not been content to let the cultural side of its educational activities be merely a passive by-product. Instructors are men of high ideals and attainments, who have a genuine interest in those finer attributes of character and personality which make for good citizenship and the appreciation of worthy ideals. A large part of the success of the School and of the individual students may be traced directly to the contacts with instructors of the caliber selected by the School of Business.

### SUCCESS OF THE ALUMNI

The best indication of the cumulative rewards to be won by pursuing a systematic program of study in spare evening hours is to be found in the records of Northeastern School of Business Alumni.

A study covering a 20-year period conclusively shows that better positions and increased incomes are directly traceable to the evening hours spent in preparation at Northeastern.

A portion of this study is the comparison of positions held by the alumni when they entered the School as freshmen with the positions they held at the time of the study.

	Upon Entrance %	Twent Year Later %
Presidents and Other Corpora- tion Officers	.5	3.4
Owners of Business	1.6	6.7
Treasurers and Comptrollers	.2	10.0
Accountants	9.0	31.2
Office Managers	1.2	8.3
Department Managers	3.7	14.6
Salesmen	3.0	4.7
Educators	2.3	4.3
Government Employees	1.9	2.4
Bookkeepers	20.8	5.8
Clerks	47.4	6.2
Factory Workers	4.9	1.0
Unemployed	.7	1.0
Miscellaneous	2.8	.4

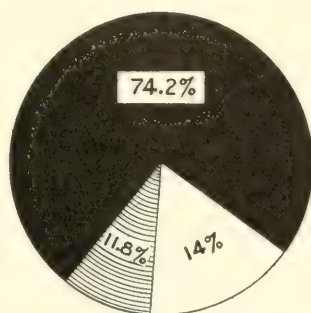
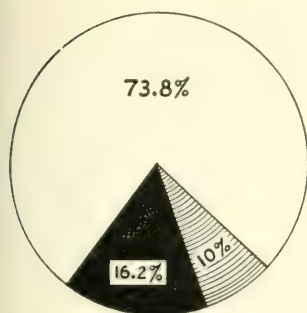
This pronounced trend to better and more responsible positions is further substantiated by a study of the income of the same alumni group over the same period

Entrance to 1 year after graduation	— 56% increase
Entrance to 5 years after graduation	— 153% increase
Entrance to 10 years after graduation	— 239% increase
Entrance to 15 years after graduation	— 297% increase

Notice that the average Northeastern student begins his advancement in business even while he is *still at his training*, and that upon graduation he has already taken forward step in his business career.

Although the years since the date of the 20-year normal study have affected the range of its figures, it is safe to assume that a similar ratio between the incomes of Northeastern trained men and untrained men still applies. In the depression period it is probable that Northeastern alumni because of their training, have fared proportionately better than in normal times since business men tend to retain the best of their personnel when reductions become necessary.

## THE STUDY OF POSITIONS HELD



## KEY



EXECUTIVE RESPONSIBILITY



MISCELLANEOUS POSITIONS



CLERICAL AND FACTORY WORK

*The Freshman Clerk, an Alumnus Executive*

However, the success of alumni is not to be measured entirely by the dollar and cents increase in their incomes. Northeastern University School of Business Alumni, as a result of their broad training, have enlarged their whole horizon of life. They have developed a keener appreciation of the human values which count most in life. They have found valuable avenues of friendship and social contact. They have discovered larger opportunities for participation in social and civic enterprises. They have become not only better business men but better citizens.

## THE STUDENT BODY

The character of a student body determines the standards which a school can maintain. Nothing is more essential to the success of an educational institution than a careful selection of incoming students. This principle applies just as readily to an evening school as to a day school. Standards are invariably adjusted to the average in-

telligence of the students. For this reason, Northeastern University School of Business maintains standards of admission which result in a student body capable of pursuing work of standard college grade during evening hours.

The student body consists of 1506 men and women of widely varied ages and occupations. The youngest student is 16 years of age and the oldest 61 years. The average age is 23.9 years.

About one-sixth of the students are married men who have realized that if they are to increase their earning power they must fit themselves for advancement. That the training offered by the School has enabled the students to improve their earning capacities and enlarge their responsibilities is conclusively proved by a study which showed that students in the School increased their incomes 49% in the five-year period between entering the School and graduation, and as much as 297% in the following fifteen years.

In the student body 333 high schools and other preparatory schools are represented. Sixty-three colleges and universities are represented by 231 students who are either graduates or have attended one or more years.

In Boston, 531 students come from 102 different cities and towns, commuting from considerable distances.

In the Worcester Division, 289 students represent 30 separate communities; and in Springfield, 38 different communities, largely in the Southern Connecticut Valley, contribute 445 students.

The 224 students at Providence represent 33 cities of Massachusetts and Connecticut as well as Rhode Island.

### **PLACEMENT SERVICE FOR GRADUATES**

While the School cannot guarantee positions to its graduates, the number of requests for men usually exceeds the number available in the graduating class of any given year. The policy of the School is to find the best equipped and qualified men among its graduates for the positions which the School is called upon to fill.

The School in recommending a graduate for a position furnishes the prospective employer with the facts as to the graduate's ability, character, attitudes, habits, and other qualifications for the position as revealed by the School records. In the last analysis, however, placement in a position depends quite largely upon the graduate's ability to sell his services to the prospective

employer. Most employers prefer to consider two or more candidates for a position and generally request the School to suggest more than one person. Many manufacturing and commercial firms throughout New England call upon this School to assist them in filling important executive and managerial positions.

No charge is made for placement service.

### **FOR STUDENTS**

Many requests from employers are received by the School, during normal times, for young men of potential ability to fill important clerical and junior executive positions. It is the policy of the School to serve the students whenever possible by placing them in those positions which promise attractive opportunities for development and advancement. The School, however, cannot guarantee to place its students, but it does endeavor to keep in close touch with those who desire placement service and to assist them in obtaining satisfactory advancements in positions and income. No charge is made for placement service. Those needing this assistance should file an application at the School Office.

In recommending students for positions, preference is given to those who have completed a year or more of study in the School. The School must know something as to the abilities, habits, character, and general worth of an individual as revealed by his record as a student before it can recommend him for a position.

# School of Business

## \*Staff of Instruction

### BOSTON

ELLIOTT SHEFFELD BOARDMAN,  
*Bowdoin College; M.B.A., Harvard University*  
Business Administration Seminar  
Business Planning and Research  
*Manager, Industrial Statistics Division, Federal Reserve Bank of Boston*

CHARLES ALBERT CEDERBERG,  
*Boston University*  
Introductory Accounting; Intermediate Accounting  
*Instructor in Bookkeeping, Boston Clerical School*

ALFRED D'ALESSANDRO,  
*B.C.S., LL.B., Northeastern University; M.B.A., Boston University; Harvard University; C.P.A.*  
Cost Accounting; Accounting Problems  
*Professor of Accounting and Chairman of the Department of Accounting, Northeastern University, Day Division*

JOHN SYDNEY DAWSON,  
*A.B., Holy Cross College; M.B.A., LL.B., Harvard University*  
Torts and Crimes in Business  
*Attorney at Law, Hurlburt, Jones and Hall*

LEO THOMAS FOSTER,  
*A.B., A.M., Holy Cross College; Harvard University; Boston University*  
Income Tax Procedure  
*Head of Commercial Department, Jeremiah E. Burke High School*

CHARLES MACKEY GANSON,  
*B.A., Yale University; LL.B., Harvard University*  
Risks of Business  
*Attorney at Law, Taylor, Ganson and Perrin*

HOWARD EATON GORTON,  
*B.S., Hobart College; M.B.A., Harvard University*  
Marketing  
*Merchandise Manager, Dennison Manufacturing Company*

ROGER STANTON HAMILTON,  
*A.B., University of Pittsburgh; M.A., Tufts College; Harvard University*  
Business Economics  
*Associate Professor of Economics, Northeastern University, Day Division*

J. KEENE HORNER,  
*B.A., University of Oklahoma; M.B.A., Harvard University*

Public Speaking; Business Reports and Conferences; Counsellor, Business Readings  
*Instructor in Business Administration and Public Speaking, Babson Institute*

ROGER JOHNSON,  
*B.S., Bowdoin College; M.B.A., Harvard University*

Business Statistics and Forecasting; International Economic Relations  
*Statistician, New England Council*

ROBERT COURTNEY MATTOX,  
*B.A., Dartmouth College*  
Business English; Advanced English  
*Assistant Sales Promotion Manager, Liberty Mutual Insurance Company*

HAROLD ADAM MOCK,  
*B.C.S., Northeastern University; C.P.A.*  
Constructive Accounting; Auditing; Advanced Accounting Problems  
*Partner, Stewart, Watts and Bollong*

FRANKLIN NORVISH,  
*B.S., Colby College; M.A., Yale University*  
Public Speaking  
*Instructor in English, Northeastern University, Day Division*

HARRY OLINS,  
*A.B., LL.B., Harvard University*  
Business Contracts  
*Attorney at Law*

ANDREW PETERSEN,  
*B.B.A., M.B.A., Boston University; C.P.A.*  
Accounting Aids to Management  
*Director of Accounting and Taxation, Babson Institute*

MATTHEW POROSKY,  
*B.S., Massachusetts Institute of Technology*  
Fundamentals of Business Management; Management Problems and Policies; Government Controls in Business  
*Vice-President of the Gamewell Company and Vice-President of the Holtzer-Cabot Electric Company*

\*The Faculty for the year 1939-40 is published during the summer.



B. FLOYD RINKER,  
A.B., Dickinson College; Harvard University  
Business English  
Teacher, Newton High School

ROBERT NEVITT SANFORD,  
B.A., University of Richmond; M.A., Columbia  
University; Ph.D., Harvard University  
Business Psychology  
Research Psychologist, Shady Hill Growth Study,  
Harvard University

ELDON CAMPBELL SHOUP,  
A.B., Washburn College; M.B.A., Harvard Uni-  
versity

Principles of Selling, Sales Management  
Divisional Merchandising Manager, Dennison  
Manufacturing Company

EBEN OSWELL SMITH,  
B.S., Northeastern University; Boston University  
Economic Development of the U. S.; Money  
and Banking  
Registrar, Northeastern University, Evening Divi-  
sion

IRWIN SPEAR,  
Ph.B., University of Vermont  
Principles of Advertising; Retail Store Ad-  
vertising  
Advertising Manager, C. Crawford Hollidge

HARRY WILBUR THOMPSON,  
Credits and Collections  
Credit Manager, General Sea Foods Corporation

MARK WAINER,  
LL.B., LL.M., Boston University  
Agents and Agencies  
Attorney at Law

CHARLES MILFORD WERLY,  
B.S., Cornell University; M.B.A., Harvard Uni-  
versity  
Financial Organization  
Trustee, The George Putnam Fund of Boston

RALPH KIMBALL WHITNEY,  
A.B., Dartmouth College; Ed.M., Harvard Univer-  
sity; Boston University  
Business English  
Instructor, School of Education, Boston University

RUSSELL WHITNEY,  
B.S., Dartmouth College; LL.B., Northeastern  
University  
Legal Aspects of Business  
Dean, Northeastern University School of Business

KENNARD WOODWORTH,  
A.B., Harvard University  
Investment Principles and Practice  
Statistician, Boston Insurance Company

## WORCESTER DIVISION

WILLIAM BISHOP, JR.  
Credits and Collections  
Credit Manager, Graton & Knight Co.

JOHN EARLE BLOSSOM,  
A.B., Wesleyan University; Ed.M., Harvard Uni-  
versity  
Business English  
Professor of English, Worcester Academy

GEORGE A. DUNNING,  
Public Speaking  
New England Manager, Crowell Publishing Com-  
pany

JOHN ENNEGUESS,  
B.C.S., B.B.A., Northeastern University; Harvard  
University

Income Tax Procedure  
WILLIAM LEONARD ESTERBERG,  
B.C.S., Northeastern University; C.P.A.  
Auditing; Constructive Accounting; Ac-  
counting Aids to Management  
Manager, Peat, Marwick, Mitchell & Co.

JOHN ABRAM GROVE,  
B.S., M.E., Lafayette College  
Business Planning and Research; Marketing  
Market Research Analyst, Dennison Manu-  
facturing Company

J. KEENE HORNER,  
B.A., University of Oklahoma; M.B.A., Harvard  
University  
Advanced English  
Instructor in Business Administration and Public  
Speaking, Babson Institute

CHARLES EDWIN HUTCHINS,  
LL.B., Lincoln Jefferson University  
Counsellor to Students; Introductory Ac-  
counting  
Attorney at Law; Instructor, High School of  
Commerce

JAMES MORTIMER KENISTON,  
B.S., Bowdoin College; M.B.A., Harvard Uni-  
versity  
Fundamentals of Business Management  
Merchandising Manager, Ulian's

WILLARD G. LEATHERS,  
A.B., Yale University  
Management Problems and Policies  
Assistant Merchandising Manager, Dennison  
Manufacturing Company



ARTHUR FLETCHER LUCAS,  
*A.B., Bates College; A.M., Ph.D., Princeton University*  
 Business Economics  
*Professor, Clark University*

HOMER ATWOOD LUCAS,  
*B.B.A., Boston University; C.P.A.*  
 Accounting Problems  
*Instructor, Bentley School of Accounting and Finance*

ALBERT PALMER,  
*B.S., B.E., Harvard University; Oxford University*  
 Fundamentals of Business Management  
*Research Assistant to General Manager, Crompton & Knowles Loom Works*

WILLIAM BARRINGTON POLLOCK, JR.  
*A.B., University of Pennsylvania*  
 Modern Advertising; Creative Advertising  
 Production; Principles of Selling; Sales Management  
*Salesman, Brewer & Co., Inc.*

ALBERT JAMES SCHWIEGER,  
*B.A., Hamline University; M.A., Clark University; Ph.D., Harvard University*  
 Economic Development of the U. S.  
*Professor of Economics, Worcester Polytechnic Institute*

SUMNER BURNHAM TILTON,  
*A.B., Dartmouth College; LL.B., Harvard University*  
 Legal Aspects of Business  
*Attorney at Law, Vaughan, Esty, Clark & Crotty*

JOSEPH BERTRAM WADLEIGH,  
*A.B., Bates College; A.M., Harvard University*  
 Business Psychology  
*Special Agent, Equitable Life Assurance Company*

HARRY WARREN WALLIS,  
*C.P.A.*  
 Intermediate Accounting; Advanced Accounting Problems  
*Public Accountant*

HOWARD COOLIDGE WEEKS,  
*B.A., Cornell University*  
 Business Administration Seminar  
*Assistant to General Merchandise Manager, Dennison Manufacturing Company*

CHARLES ERNEST YOUNG,  
*A.B., Bucknell University; M.B.A., Harvard University*  
 Investment Principles and Practice; Financial Organization  
*Member of Firm, Gregg, Storer & Co., Boston*

## SPRINGFIELD DIVISION

LUTHER ANDERSON,  
*A.B., A.M., Ph.D., Yale University*  
 Fundamentals of Business Management  
*Member of Staff, Kinney Insurance Agency*

ERNEST ADOLPH BERG,  
*B.C.S., LL.B., Northeastern University; C.P.A.*  
 Advanced Accounting Problems  
*Partner, Hitchcock & Co., Accountants; Attorney at Law*

REGINALD NELSON BLOMFIELD,  
*A.B., Williams College*  
 Advanced Algebra; Plane Trigonometry  
*Personnel Department, Massachusetts Mutual Life Insurance Company*

DAVID HOLBROOK BROWN,  
*A.B., Middlebury College; LL.B., Boston University; A.M., Trinity College*  
 Business Economics; Financial Organization; Economic Development of the U. S.  
*Instructor, Classical High School*

CLARENCE IRVING CHATTO,  
*A.B., Bates College; A.M., Harvard University*  
 Business English; Advanced English  
*Instructor, High School of Commerce*

CARL ODLIN CHAUNCEY,  
*LL.B., Northeastern University*  
 Legal Aspects of Business  
*Member of Legal Staff, Farm Credit Administration of Springfield; Attorney at Law*

ALEXANDER DUNCAN DAVIS,  
*B.T.E., Lowell Textile Institute*  
 Mechanical Drawing  
*Instructor, Technical High School*  
 NELSON HAYWARD FOLEY,  
*Boston University*  
 Management Problems and Policies; Government Controls in Business  
*Member of Staff, Scovell, Wellington & Co.*

ALDEN FRENCH,  
*A.B., Harvard University; Harvard Graduate School of Business Administration*  
 Marketing  
*Member of Staff, Scovell, Wellington & Co.*

EDWARD PHELPS GRACE,  
B.C.S., *Northeastern University*; C.P.A.  
Accounting Aids to Management  
Assistant General Manager, *Springfield Merchants, Inc.*

CLARENCE MORTIMER HALL,  
B.S., M.S., *Worcester Polytechnic Institute*  
Electricity  
Instructor, *Classical High School*

FRANK YAEGER HESS,  
S.B., *Harvard College*  
Chemistry  
Instructor, *Classical High School*

WALDEN PORTER HOBBS,  
*Bates College*; *University of Toulouse*; C.P.A.  
Accounting Problems  
Member of Staff, *Scovell, Wellington & Co.*

GEORGE WRIGHT HOWE,  
A.B., M.B.A., *Harvard University*  
Business Administration Seminar; Business  
Planning and Research  
Administrative Staff, *Package Machinery Company*

FRED WOODING HUTCHINSON,  
B.S., *Wesleyan University*; *Boston University*  
Analytic Geometry; Calculus; Counsellor to  
Engineering and Business Students  
Instructor, *Technical High School*

WILLIAM WARD JOHNSTON,  
*University of Minnesota*; M.C.S., *Southeastern University*; C.P.A.

Income Tax Procedure  
Member of Staff, *Scovell, Wellington & Co.*

CYRUS WALTER JONES,  
S.B., *Harvard College*  
Business English  
Instructor, *Technical High School*

HARRY HARRIS KING,  
B.S., *Worcester Polytechnic Institute*; C.P.A.  
Cost Accounting; Constructive Accounting;  
Auditing  
Public Accountant

MALCOLM ANGUS MACDUFFIE,  
B.S., *Massachusetts Institute of Technology*  
Strength of Materials  
Principal, *MacDuffie School*

GUY DOLPHUS MILLER,  
A.B., *Ohio University*; *University of Wisconsin*;  
*Harvard Graduate School of Business Administration*;  
Ed.M., *Harvard University*; C.P.A.

Business Reports and Conferences; Coun-  
sellor to Students, including Theses and Business  
Readings  
Instructor, *High School of Commerce*

JOHN HAYNES MILLER,  
A.B., *Washington and Jefferson College*  
Business Statistics and Forecasting  
Vice-President and Actuary, *Monarch Life In-  
surance Company*

HERBERT MOORE,  
A.B., *University of Toronto*; A.M., Ph.D.,  
*Harvard University*  
Business Psychology  
Assistant Professor, *Mount Holyoke College*

LAFAYETTE CLOWE REYNOLDS,  
B.E., *Union College*  
Credits and Collections  
Industrial Management Counsel

CARROLL WARD ROBINSON,  
A.B., *Clark College*; Ed.M., *Harvard University*  
Public Speaking  
Principal, *Myrtle Street Junior High School*

STANLEY OSCAR SMITH,  
B.C.S., *Northeastern University*; Ed.M., *Harvard University*  
Intermediate Accounting  
Principal, *High School of Commerce*

JEROME LYON SPURR,  
B.S., *Massachusetts Institute of Technology*  
Physics; Mechanics  
Assistant Engineer, *Metropolitan District Water Supply Commission*

ELO CARL TANNER,  
B.M.E., *University of Minnesota*; *University of Pittsburgh*  
Engineering Drawing; Machine Design  
Refrigeration Development and Design Engineer,  
*Westinghouse Electric and Manufacturing Com-  
pany*

GILBERT CREIGHTON WALKER,  
A.B., Ed.M., *Harvard University*; *Northeastern University*  
Introductory Accounting  
Instructor, *High School of Commerce*

ELIOT LELAND WIGHT,  
B.A., *Yale College*; *University of Colorado*  
*Graduate School*  
Advertising Principles and Campaigns  
Principles of Selling; Sales Management  
Advertising Manager, *United States Envelope Company*

PAUL ALMY WILKS,  
A.B., *Harvard University*  
Business English  
Chief Accountant, *Strathmore Paper Company*

## PROVIDENCE DIVISION

HOWARD SAMUEL ALMY,  
C.S., *Northeastern University*  
Credits and Collections  
Credit Manager, *Collyer Insulated Wire Company*,

ALTON WILSON BARSTOW,  
S., *Norwich University*  
Principles of Selling; Sales Management  
Sales Manager, *Narragansett Electric Company*

JOHN EDWARD CANDELET,  
S., A.M., *Colby College*; M.B.A., *University of Pennsylvania*

Business Economics; Business Statistics and  
Forecasting; Financial Organization  
Comptroller and Head of Department of Economics,  
*Rhode Island State College*

JAMES HARPER CHASE,  
B., M.A., *Brown University*  
Business English  
Instructor, and Head of English Department,  
*Central High School*

CARL WILLIAM CHRISTIANSEN,  
C.S., *Northeastern University*; C.P.A.  
Introductory Accounting  
Partner, *Christiansen-Murphy & Co.*

SETH BRAYTON GIFFORD,  
B., *Brown University*; C.P.A.  
C.P.A. Comprehensive Review; Income Tax  
Procedure  
Partner, *Harris and Gifford*

ALBERT EDWARD GODFREY,  
C.S., LL.B., *Northeastern University*; C.P.A.  
Income Tax Procedure; Legal Aspects of  
Business  
Treasurer, *Lymanville Company*

HARRY EDMUND HOWELL,  
L.B., *Northeastern University*; C.P.A.  
Constructive Accounting; Auditing; Cost  
Accounting  
Controller, *Grinnell Company*

HOWARD ALLISON KENYON,  
B., *Brown University*; C.P.A.  
Accounting Aids to Management  
Partner, *F. E. Welch & Co.*

CHESTER TOTTEM MOREY,  
S., *Massachusetts Institute of Technology*  
Management Problems and Policies  
Superintendent, *Rhode Island Tool Company*

CLIFTON IRVING MUNROE,  
B., *Brown University*; LL.B., *Harvard University*  
Public Speaking  
Attorney at Law, *Voight, Wright, Munroe and*  
*Clason*

NICHOLAS PICCHIONE,  
B.C.S., *Northeastern University*; C.P.A.  
Accounting Problems  
Accountant

ROBERT ROCKAFELLOW,  
B.S., M.A., *University of Pennsylvania*  
Fundamentals of Business Management;  
Business Economics; Economic Development of  
the U. S.  
Assistant Professor of Economics, *Rhode Island State College*

LEONARD HERBERT RUSSELL,  
B.S., M.S., *Rhode Island State College*  
Fundamentals of Business Management;  
Business Statistics and Forecasting; Economic  
Development of the U. S.  
Head, *Statistical Division, Unemployment Compensation Board of R. I.*

BURTON WILLIAM SCHELLENBACH,  
*University of Cincinnati*  
Principles of Advertising  
Copy-Chief, *Larchar Horton & Co.*

CHARLES PECK SISSON,  
A.B., *Brown University*; LL.B., *Harvard University*  
Government Controls in Business  
Attorney at Law

ELMER REID SMITH,  
Ph.B., A.B., *Brown University*  
Advanced English; Business Reports and  
Conferences  
Vice-Principal, *Robert Hazard Perry Junior High School*

SHERMAN LEWIS SMITH,  
A.B., *Dartmouth College*  
Business Psychology  
Sales Promotion Manager, *Bostitch, Inc.*

ADAM ANDREW SUTCLIFFE,  
B.S., M.C.S., *Dartmouth College*  
Marketing  
Treasurer and Manager, *Adam Sutcliffe Company*

ALLYN KINGSLEY SUTTELL,  
*Northeastern University*; C.P.A.  
Intermediate Accounting  
Partner, *F. E. Welch & Co.*

WILLIAM WAGENKNECHT,  
Ph.B., *Brown University*; C.P.A.  
Advanced Accounting Problems  
Controller, *B. A. Ballou & Co.*

# School of Business

## *Programs of Instruction*

**T**HE SCHOOL provides the following major programs of instruction for undergraduate students:

### **ACCOUNTING**

1. A specialized program leading to the title of Associate in Accounting.
2. A six-year program leading to the degree of Bachelor of Business Administration in Accounting. (See page 19.)

### **MANAGEMENT**

A six-year program with opportunity for specialization in one of the following fields:

Distribution  
Industry

This program leads to the degree of Bachelor of Business Administration in Management (See page 22.)

### **LAW AND BUSINESS MANAGEMENT**

A four-year program combining the study of law and business, leading to the degree of Bachelor of Commercial Science in Law and Business Management. This course is offered in Boston but not in the

Divisions. Six-year degree programs in Law and Business are offered in Boston, Worcester and Springfield. (See page 24.)

### **ENGINEERING AND BUSINESS**

A six-year program combining the study of engineering and business, leading to the degree of Bachelor of Business Administration in Engineering and Management. This program is offered in Boston, Worcester and Springfield. (See page 26.)

### **SPECIAL PROGRAMS**

Where the individual needs of a student necessitate, the School will provide special one-year, two-year, or longer programs to meet those needs. If, for good reasons, a student wishes to vary a regular program, he may do so upon securing approval from the Dean. (See page 27.)

### **SINGLE OR UNIT COURSES**

For those who may wish to pursue one or more related or unrelated subjects instead of a title or degree program, opportunity is provided for enrolling in single or unit subjects. (See page 27.)



## THE ACCOUNTING PROGRAMS

Students of accounting in the School of Business may follow programs of training in this specialized program which prepare them to take the examination for Certified Public Accountant (C.P.A.) or to carry on work of major responsibility in commercial accounting with private or public business firms.

Thoroughness of instruction is all-important. The trained accountant must be able to adapt himself quickly to the rapidly changing conditions of modern business. He should be ready to assume executive responsibility outside the field of accounting. This involves, of course, a background of understanding of various functions of business quite apart from the specialized accounting field. The shorter accounting program includes prescribed subjects for the title of Associate in Accounting and adequate preparation for the C.P.A. examination.

Upon completion of the four years of prescribed subjects for the title of Associate in Accounting, students may take two years of additional study required for the degree of Bachelor of Business Administration. These two additional years are greatly to the advantage of the student, since they give an opportunity to study managerial and administrative subjects which fit him to assume responsibility outside of the accounting field, and give him the basic understanding of business at large which is of vital importance to accountants who hope to make real progress.

### OPPORTUNITY IN THE ACCOUNTING PROFESSION

taxation, legal requirements governing qualifications for listing in the stock market, corporation laws governing the

preparation of financial reports, and many other developments in the conduct of business have broadened the scope of accounting to such a degree that in normal times the supply of trained accountants is not adequate to meet the demand. Moreover, a knowledge of accounting is universally regarded as essential in all phases of business management. There is a large field of public accounting which is being developed, and with the increased emphasis which financial institutions are placing upon accounting, the need for college trained Certified Public Accountants is increasing every year.

Opportunities in the field of accounting are many. Financial returns compare favorably with those of other professions such as law, medicine, and engineering.

The normal development of an accountant from the time he gets his degree is as follows:

**First** — as a junior assistant, he works on routine accounting procedure which is highly essential as a part of his experience. Compensation usually ranges from \$1,000 to \$1,500. The average man spends about two years in this position.

**Second** — as a senior assistant accepting some responsibilities, and performing somewhat of a professional service, the average man gets a salary which ranges from \$1,400 to \$2,500 a year.

**Third** — he now assumes full responsibilities for important assignments and becomes a senior accountant with a salary range from \$2,500 to \$5,000.

As a supervisor in charge of the work of other accountants, the salary range goes up to \$3,500 to \$10,000.



**Fourth** — the peak of success for accountants is firm membership. As a firm member, the accountant may not earn more than in the other higher positions, but usually earnings range from \$4,000 to \$25,000 a year, and frequently as high as \$50,000.

While the remuneration in the field of public accounting for properly trained men is attractive, the field of commercial and private accounting offers even more attractive inducement. The latest census figures show that there are 191,571 persons engaged as accountants and auditors in the United States. From trained accountants are selected many of the executives outside the accounting profession, including office managers, comptrollers, treasurers, and other officers of business concerns. Salaries of treasurers and comptrollers vary from \$4,000 to \$15,000; office managers from \$3,000 to \$6,000; chief accountants from \$2,500 to \$5,000. Many senior accountants have advanced into responsible executive positions paying \$10,000 and more.

#### QUALIFICATIONS FOR SUCCESS IN ACCOUNTING

There is no easy or royal road to success in accounting. The technique can be mastered only through continuous application, comparable to the preparatory work of a doctor, lawyer, or engineer. Mathematical accuracy is extremely important. The student must learn to analyze logically and soundly; to visualize and present situations as they develop. Each step, however painstaking and laborious, must be mastered by one who hopes to succeed either as a public or private accountant. Above all, the higher standards of honesty must be maintained, and the accountant's personal and

ethical conduct must be above suspicion. The successful accountant is able to make a good appearance, to present an agreeable personality, and to express his ideas clearly in good English. Northeastern University School of Business tries to train its graduates so that they possess all these qualifications. The School encourages only men with the proper personal, mental, and educational qualifications to enter the profession.

#### REQUIREMENTS FOR TITLE OF ASSOCIATE IN ACCOUNTING

(Four Years of Study Required)

<i>Course Numbers*</i>	<i>Subjects</i>	<i>Semester Hours</i>
A 1-2	Introductory Accounting	4
A 3-4	Intermediate Accounting	4
A 7-8	Accounting Problems	4
A 9-10	Cost Accounting	4
A 11	Auditing	2
A 13-14	Income Tax Procedure	4
A 15	Constructive Accounting	2
A 17-18	Advanced Accounting Problems	4
A 19-20	C.P.A. Accounting Review	4
E 1-2	Business English	4
Ec 1-2	Business Economics	4
Ec 3-4	Financial Organization	4
L 1-2	Legal Aspects of Business (C.P.A. Law)	4
Total Semester Hours Required for Title		48

\* See notes at bottom of page 27.

**REQUIREMENTS FOR B.B.A.  
DEGREE IN ACCOUNTING**
**(Six Years of Study Required)**

<i>Course Numbers*</i>	<i>Subject</i>	<i>Semester Hours</i>
A 1-2	Introductory Accounting	4
A 3-4	Intermediate Accounting	4
A 7-8	Accounting Problems	4
A 9-10	Cost Accounting	4
A 11	Auditing	2
A 13-14	Income Tax Procedure	4
A 15	Constructive Accounting	2
A 17-18	Advanced Accounting Problems	4
A 19-20	C.P.A. Accounting Review	4
1-2	Business English	4
5	Public Speaking	2
6	Business Reports and Conferences	2
7-8	Business Readings or T 3-4, Thesis	4
c 1-2	Business Economics	4
c 3-4	Financial Organization	4
1-2	Legal Aspects of Business	4
c 7-8	Business Statistics and Forecasting	4

<i>Course Numbers*</i>	<i>Subject</i>	<i>Semester Hours</i>
M 7-8	Credits and Collections	4
M 11-12	Government Controls in Business	4
	Occupational Experience	24
	Electives (To be se- lected subject to ap- proval)	8
	Total Semester Hours	—
	Required for Degree	100

The normal period of attendance for the Associate in Accounting Program is four years, thirty-two weeks each year, three evenings a week, two hours each evening; for the B.B.A. Degree Program, six years, thirty-two weeks each year, three evenings a week, two hours each evening, except for those who enter with advanced standing credit. Students who wish to attend less than three evenings a week may do so, extending the time required to complete their programs.

See notes at bottom of page 27.



*A background  
of accounting  
is essential in  
a graduate's  
qualifications  
for success*

## THE MANAGEMENT PROGRAMS

"The field of business within the last twenty years has so widened and become so much more complex that the successful business man finds no limit set to his vision. As an executive he must possess the faculty of interpreting current events, the ability of analyzing situations, and a thorough knowledge of the principles underlying all successful business practice."<sup>1</sup>

The complexity of modern business makes it exceedingly difficult for those who are dependent upon their own experience to develop those abilities and obtain the knowledge so necessary for the desired advancement in business. A broad perspective of business organization and operation develops viewpoints and habits that promote clear thinking and sound judgments in business decisions. This broad perspective demands not mere facts but also that executive power which can initiate plans and put them into effective operation. This power is seldom acquired from experience in details but comes from a thorough knowledge of business principles and of the proper application of those principles to the solution of problems. Executive and managerial leadership demands that power; the School of Business through its Management Programs proposes to develop it.

A recent extensive study<sup>2</sup> of occupational opportunities shows that most college men who enter work in distribution, industry, transportation, and banking become involved sooner or later in some function of operating management where they become responsible for the direction of human effort within their organization.

Students interested in the field of distribution will find in the Merchandising Management curriculum a program adapted especially to their needs. Included are such courses as marketing, purchasing, retail store management, advertising, selling, credits and collections, department store administration, and many

others so essential to a sound knowledge of present day business problems. Not only are these rather specialized fields covered adequately but a thorough training is given in the principles of economics and the application of these principles to modern business conditions, thus making it possible for the student to see himself in relationship to the executive and managerial responsibilities he will need later to assume.

### REQUIREMENTS FOR B.B.A. DEGREE IN MANAGEMENT

(Merchandising Major)

<i>Course Numbers*</i>	<i>Subjects</i>	<i>Semester Hours</i>
A 5-6	Accounting Aids to Management**	4
D 1 2	Marketing	4
D 3	Principles of Selling	2
D 4	Sales Management	2
D 5	Principles of Advertising	2
D 6	Retail Store Advertising	2
E 1-2	Business English	4
E 5	Public Speaking	2
E 6	Business Reports and Conferences	2
E 7 8	Business Readings or T 3-4 Thesis	4
Ec 1-2	Business Economics	4
Ec 3-4	Financial Organization	4
Ec 7 8	Business Statistics and Forecasting	4
L 1-2	Legal Aspects of Business	4
M 1-2	Business and Industrial Management	4
M 5	Psychology for Business and Industry	2
M 6	Principles of Purchasing	2
M 7-8	Credits and Collections	4
M 11-12	Government Controls in Business	4
M 13	Retail Store Management	2

<sup>1</sup> Statement by Dr. Jeremiah W. Jenks, late President, Alexander Hamilton Institute.

<sup>2</sup> Dewhurst and Bossard, University Education for Business, Univ. of Pa. Press.

\*, \*\* See notes at bottom of page 27.



A class in Distribution, relating sales problems and methods, conducts its own sales demonstration

<i>Course Numbers*</i>	<i>Subjects</i>	<i>Semester Hours</i>
M 14	Department Store Administration	2
M 17-18	Business Planning and Research	4
M 19-20	Business Administration Seminar	4
	Occupational Experience	24
	Electives (To be selected subject to approval)	4
Total Semester Hours Required for Degree		100

Students interested in industrial management are offered a Management Program with an Industrial Major designed to give sound training, not only in the usual business subjects, but also in the more technical fields of production and scientific management. Careful study is made of the fundamental manufacturing processes,

factory organization, product design, methods of production and production control, time and motion study, and related topics. This program offers excellent training for managerial responsibility in industrial and commercial enterprises where a technical knowledge of management problems combined with a business background is needed.

**REQUIREMENTS FOR THE  
B.B.A. DEGREE IN  
MANAGEMENT  
(Industrial Major)**

<i>Course Numbers*</i>	<i>Subjects</i>	<i>Semester Hours</i>
A 5-6	Accounting Aids to Management**	4
D 1-2	Marketing	4
D 3	Principles of Selling	2
D 4	Sales Management	2
E 1-2	Business English	4
E 5	Public Speaking	2

\*, \*\*, See notes at bottom of page 27.



<i>Course Numbers*</i>	<i>Subjects</i>	<i>Semester Hours</i>	<i>Course Numbers*</i>	<i>Subjects</i>	<i>Semester Hours</i>
E 6	Business Reports and Conferences	2	M 17-18	Business Planning and Research	4
E 7-8	Business Readings or T 3-4, Thesis	4	M 19-20	Business Administration Seminar	4
Ec 1-2	Business Economics	4		Occupational Experience	24
Ec 3-4	Financial Organization	4		Electives (To be selected subject to approval)	4
Ec 7-8	Business Statistics and Forecasting	4		Total Semester Hours	
L 1-2	Legal Aspects of Business	4		Required for Degree	100
M 1-2	Business and Industrial Management	4			
M 3	Principles of Production	2			
M 4	Scientific Management	2			
M 5	Psychology for Business and Industry	2			
M 6	Principles of Purchasing	2			
M 7-8	Credits and Collections	4			
M 9-10	Industrial Management Problems and Policies	4			
M 11-12	Government Controls in Business	4			

The normal period of attendance for each of these programs is six years, thirty-two weeks each year, three evenings a week, two hours each evening, except for those who enter with advanced standing credit. Students who wish to attend less than three evenings a week may do so, extending the time required to complete their programs.

## LAW AND BUSINESS MANAGEMENT PROGRAM

(This program is offered in Boston only)

The complexity of the modern business structure emphasizes the increasing necessity for the business executive to understand not only the principles of his business but to possess a fundamental knowledge of the laws under which his business operates. In order to meet this need the School has developed a four-year program leading to the degree of Bachelor of Commercial Science in Law and Business Management.

As all business is organized and conducted on a legal basis, executive positions in practically every business demand at least a basic knowledge of the law on the part of those who are to be successful. Underlying present large-scale marketing and production, which characterize today's business, is a net work of law which safeguards the rights of business men as they deal with one another and also defines the channels into which business practices shall be directed and through which they shall move. Business executives find a real and

vital need for men and women who are not only versed in business but who also can offer a background of training in the legal principles involved in business. The student so equipped will bring to his position an advantage which will be of inestimable value.

This four-year degree program provides a sound and basic knowledge of those principles of law and of business which are so essential for success in various fields of business. The program meets particularly the needs of the following groups:

- 1 Employees of banks and trust companies;
- 2 Insurance officers and claim adjusters;
- 3 Real estate operators;
- 4 Accountants;
- 5 Those engaged in executive positions in business and industrial organizations.

\* See notes at bottom of page 27.



The program is primarily a business program of study covering law only as it relates to business procedure and operation. It does not prepare the student for bar examinations nor is it planned to make it possible for the business executive to dispense with the services of attorneys. It makes it possible, however, for the executive to understand how the present intricate net of legal rules and regulations affects his business undertaking.

The cases selected for study are chosen not only for their value in developing an understanding of the law involved, but also for their very practical application to every-day business. They are primarily business cases and a knowledge of business and its problems and procedures is obtained at the same time the student learns about legal principles.

The law courses are conducted by practicing attorneys. In order that students may gain an adequate knowledge of the law and may develop effectively the powers of legal analysis, the case method of instruction generally used in schools of law is employed.

Students desiring to obtain the degree of Bachelor of Business Administration in Management may do so by completing two additional years of work. The actual courses pursued will depend somewhat upon the objective of the student, and have been selected with a view to supplementing the work completed in the Law and Business Management program.

**REQUIREMENTS FOR THE  
DEGREE OF BACHELOR OF  
COMMERCIAL SCIENCE IN  
LAW AND BUSINESS  
MANAGEMENT**

Course Numbers*	Subjects	Semester Hours
L 4-5	Business Contracts	4
L 6	Agents and Agencies	2

Course Numbers*	Subjects	Semester Hours
L 7	Risks of Business	1
L 8	Torts and Crimes in Business	1
L 10-11	Business Organizations	4
L 12-13	Market Law	4
L 14-15	Rights in Private Prop- erty	4
L 16	Taxes and Taxable In- terests	2
L 17	Labor Relations	2
L 18-19	Law of Financial Organ- ization	4
L 20	Rights of Debtors and Creditors	2
L 21	Government Regulation of Business	2
A 1-2	Accounting Aids to Management	4
Ec 1-2	Business Economics	4
M 1-2	Business and Industrial Management	4
M 9-10	Industrial Management Problems and Policies	4
Total Semester Hours		—
Required for Degree		48

The courses and hours listed are those offered in Boston. *For courses available in the Divisions in Worcester and Springfield, consult the Divisional offices in those cities.*

The normal period of attendance for this program is four years, thirty-two weeks each year, three evenings each week and two hours each evening, except for those who enter with advanced standing credit. Those who wish to attend less than three evenings a week may do so and take a longer period of time to complete their programs.

\* See notes at bottom of page 27.

## ENGINEERING AND BUSINESS PROGRAM

The Engineering and Business curriculum offers basic training by combining fundamental engineering and business courses in a six-year degree program. It provides reliable training for those now engaged in or who plan to enter positions of managerial responsibility in industrial or commercial enterprises where a scientific or engineering background is required.

Many technically trained men find it impossible to assume greater managerial responsibility because they do not have a knowledge of fundamental business principles so essential in many of the better positions in industry. On the other hand, many business trained men are employed in industrial plants where a scientific background is most desirable if not necessary for advancement. This program has been developed to serve both groups.

In Boston, the Engineering courses in this program are given under the auspices of an affiliated school of Northeastern University, the Lincoln Technical Institute, which offers several four-year curricula in Engineering leading to the title of Associate in Engineering. The business courses are conducted by the School of Business which awards the degree of Bachelor of Business Administration in Engineering and Management.

The required business courses are largely in the field of industrial management and are designed to supplement the engineering work of the student. A careful study is made of the fundamental manufacturing processes, factory organization, production design, methods of production and production control, and time and motion study.

Students pursuing a program of engineering and business subjects ordinarily complete the work required for the title of

Associate in Engineering before starting business study. The following minimum credits and courses are required to meet degree requirements.

### REQUIREMENTS FOR THE DEGREE OF BACHELOR OF BUSINESS ADMINISTRATION IN ENGINEERING AND MANAGEMENT

<i>Course Numbers*</i>	<i>Subjects</i>	<i>Semester Hours</i>
	Lincoln Technical Institute courses	44
A 5-6	Accounting Aids to Management	4
E 6	Business Reports and Conferences	2
E 7-8	Business Readings or T 3-4, Thesis	4
Ec 1-2	Business Economics	4
Ec 3-4	Financial Organization	4
M 1-2	Business and Industrial Management (May be offered for credit toward the title of Associate in Engineering)	4
M 3	Principles of Production	2
M 4	Scientific Management	2
M 6	Principles of Purchasing	2
M 9-10	Industrial Management Problems and Policies	4
	Occupational Experience	24
Total Semester Hours Required for Degree		100

In the Worcester and Springfield Divisions, more general programs with a mechanical engineering major are offered. The degree granted is the Bachelor of Business Administration in Engineering and Business.

For more detailed information, consult the special booklets issued by the Lincoln Technical Institute in Boston or by the Divisions in Worcester and Springfield.

\* See notes at bottom of page 27.

## SPECIAL PROGRAMS AND SINGLE COURSES

Special one-year, two-year, or longer programs may be arranged to meet the needs of any student who does not find in the regular programs offered by the School the type of training desired.

Such programs must be approved by the Dean and are made up only from courses offered in the Evening Division of the University.

Any course may be taken singly or in combination by those who have the neces-

sary preliminary training to pursue with profit the course or courses selected.

Students should consult the schedules of courses offered in Boston and in the Divisions for a list of available courses. Full credit may be allowed for any of these courses, if the student taking a special program desires to become a candidate for a degree or title, provided the courses he has pursued are a part of the degree or title program chosen.



*A Conference group discusses Management Policies, following an analysis by the Instructor*

\*A double number, as M 1-2 or A 7-8, indicates a full-year course covering both the first and second semesters. A single course number, as A 11, indicates a half-year course covering only one semester. The letters indicate the classification of the course as: A, Accounting; D, Distribution; Ec, Economics; E, English; L, Law; M, Management.

\*\*In case Accounting Aids to Management is not offered in the Divisions, students are required to substitute Introductory Accounting, and to take Intermediate Accounting as their elective subject. If Accounting Aids to Management is taken, Introductory and Intermediate Accounting cannot also be elected for credit, and vice versa.

\*\*\*Students in this course who are employed in positions where a knowledge of Wills is of value may elect this course upon approval of the Dean of the School of Business. For a description of the Law Courses, see special bulletin. A copy will be sent upon request.

# School of Business

## Description of Courses

**T**HE UNIVERSITY reserves the right to withdraw, modify, or add to the courses offered, or to change the order of courses in curriculums as may seem advisable.

The University further reserves the right to withdraw in any year any elective or special course for which less than twelve enrollments have been received. Regular students so affected by such withdrawal will be permitted to choose some other course. In the case of special students a full refund of all tuition and other fees will be made.

Students in Boston and in the Divisions in Worcester, Springfield, and Providence should consult the schedule of classes in the respective city where they are to attend for information as to courses given during the present year.

All full-year courses are numbered with a double consecutive number and all half-year courses with a single number. The letter or letters immediately preceding the numbers indicate the classification of the course.

### ACCOUNTING (A)

*Applicants for admission to the School who have had experience in accounting or bookkeeping or who have pursued systematic courses in institutions of less than college grade may take an Advanced Standing examination in Introductory Accounting. Those who pass this examination will be admitted to Intermediate Accounting and will receive full credit for Introductory Accounting except that the same subject cannot be offered both for admission credit and as a basis for advanced standing. See Advanced Standing credit statement, page 42.*

#### INTRODUCTORY ACCOUNTING

A 1-2 Thirty-two sessions; 4 hours' credit. No previous knowledge of bookkeeping or accounting necessary.

This course provides basic instruction for those who plan to specialize in accounting or for those who wish to enroll later for more advanced courses. Emphasis is placed upon proprietorship accounts, including books of entry, statements, business practices, adjustments, and an introduction to partnership accounts. Drill and practice work are required for proficient handling of simple accounting transactions.

#### INTERMEDIATE ACCOUNTING

A 3-4 Prerequisite: A 1-2, or the passing of an advanced standing examination. Thirty-two sessions; 4 hours' credit.

A study of partnership accounting, including organization, dissolution, and liquidation of the partnership, major emphasis being given to the corporate form of accounts with special attention to manufacturing and trading activities. In addition to the drill and practice work on accounting technique, a mastery of basic principles of general accounting is required.

#### ACCOUNTING AIDS TO MANAGEMENT

A 5-6 Thirty-two sessions; 4 hours' credit. No previous knowledge of bookkeeping or accounting necessary.

A study of the broad background of accounting and business transactions so as to enable the student to analyze and interpret intelligently financial statements and other accounting reports. The course demonstrates the use of accounting in management and financial control. Emphasis is placed on the development of accounting fundamentals, preparation of financial statements, corporation and manufacturing accounts, evaluation of balance sheet items, analysis and interpretation of financial statements and other trends, and the use of accounting as an aid to management.

#### ACCOUNTING PROBLEMS

A 7-8 Prerequisite: A 3-4 Thirty-two sessions; 4 hours' credit.

Develops power of analysis in utilizing accounting data. Problems are used as the basis for instruction and discussion to cover the more advanced phases of financial statements and ac-



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# ARRANGEMENT OF PROGRAMS AND SCHEDULE OF CLASSES



FOR THE SCHOOL YEAR  
1939-1940

*Evening Sessions  
for  
Men and Women*

NORTHEASTERN UNIVERSITY  
SCHOOL OF BUSINESS

360 HUNTINGTON AVENUE, BOSTON, MASSACHUSETTS

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## ARRANGEMENT OF PROGRAMS

The programs on this and the next page are outlined in order that the student may see the approximate order of the various subjects. The School reserves the right to change the order of courses when advisable, but in general they will be given in the order designated. Courses marked with a (1) are offered in the first semester and those marked with a (2) are offered in the second semester. All other courses run throughout the school year.

### B.B.A. Degree Program in Accounting

Provides a thorough preparation for the C.P.A. Examination, general accounting work, and for executive and administrative responsibilities. The degree of Bachelor of Business Administration in Accounting is conferred upon completion of this program. Students pursuing this program ordinarily attend three evenings each week throughout the school year.

#### *First Year*

Introductory Accounting (1)  
Intermediate Accounting (2)  
Business English

#### *Second Year*

Accounting Problems  
Income Tax Procedure  
Business Economics

#### *Third Year*

Advanced Accounting Problems  
Cost Accounting  
Financial Organization

#### *Fourth Year*

Auditing (1)  
Constructive Accounting (2)  
C.P.A. Accounting Review  
Legal Aspects of Business\*

#### *Fifth Year*

Credits and Collections  
Business Reports and Conferences (1)  
Public Speaking (2)  
Government Controls in Business

#### *Sixth Year*

Business Statistics and Forecasting\*  
Elective (8 semester hours. See catalog)

### Associate in Accounting Program

The first four years of the degree program described above constitute a practical and intensive preparation for the C.P.A. Examination and for general accounting work. Students completing this shorter program are awarded the title of Associate in Accounting.

### B.B.A. Degree Programs in Management

The student in these programs obtains an understanding of business and industry so that he can adapt himself readily to new situations as they arise and make needed adjustments because of his ability to think analytically and soundly through actual problems. These programs definitely aim to develop executive abilities. The degree of Bachelor of Business Administration in Management is conferred upon the completion of these programs.

Students pursuing these programs ordinarily attend three evenings each week throughout the school year, and may major in Merchandising or Industrial Management.

#### MERCHANDISING MAJOR

##### *First Year*

Business and Industrial Management  
Marketing  
Business English

##### *Second Year*

Business Economics  
Accounting Aids to Management  
Retail Store Management (1)  
Department Store Administration (2)

##### *Third Year*

Financial Organization  
Principles of Purchasing (1)  
Psychology for Business and Industry (2)  
Principles of Advertising (1)  
Retail Store Advertising (2)

#### INDUSTRIAL MAJOR

##### *First Year*

Business and Industrial Management  
Marketing  
Business English

##### *Second Year*

Business Economics  
Accounting Aids to Management  
Principles of Production (1)  
Scientific Management (2)

##### *Third Year*

Financial Organization  
Principles of Purchasing (1)  
Psychology for Business and Industry (2)  
Industrial Management Problems and Policies

#### *Fourth Year*

Legal Aspects of Business\*  
Business Reports and Conferences (1)  
Public Speaking (2)  
Principles of Selling (1)  
Sales Management (2)

#### *Fifth Year*

Government Controls in Business\*  
Business Planning and Research  
Credits and Collections

#### *Sixth Year*

Business Statistics and Forecasting\*  
Business Administration Seminar  
Elective (4 semester hours. See catalog)

#### *Fourth Year*

Legal Aspects of Business\*  
Business Reports and Conferences (1)  
Public Speaking (2)  
Principles of Selling (1)  
Sales Management (2)

#### *Fifth Year*

Government Controls in Business\*  
Business Planning and Research  
Credits and Collections

#### *Sixth Year*

Business Statistics and Forecasting\*  
Business Administration Seminar  
Elective (4 semester hours. See catalog)

### **B.C.S. Degree Program in Law and Business Management**

This program provides a sound basic knowledge of those principles of law and business so essential for executive success. The degree of Bachelor of Commercial Science in Law and Business Management is conferred upon the completion of this program. Students pursuing this program ordinarily attend three evenings each week throughout the school year.

#### *First Year*

Agents and Agencies (1)  
Business Contracts  
Business and Industrial Management  
Risks of Business (2)  
Torts and Crimes in Business (2)

#### *Second Year*

Business Organizations  
Market Law  
Business Economics

#### *Third Year*

Rights in Private Property\*  
Taxes and Taxable Interests\*(1)  
Labor Relations\*(2)  
Accounting Aids to Management

#### *Fourth Year*

Law of Financial Organization\*  
Government Regulation of Business\*(1)  
Rights of Debtors and Creditors\*(2)  
Industrial Management Problems and Policies

### **B.B.A. Degree Program in Engineering and Business**

This program offers training for managerial responsibility in engineering, industrial, and commercial enterprises where a scientific and business background is desired. The required Engineering courses are offered in the Lincoln Technical Institute, a technical school affiliated with and conducted by Northeastern University.

Students in this program may elect scientific courses in the following fields:

Aeronautical Engineering  
Air Conditioning Engineering  
Architectural Engineering  
Chemical Engineering

Structural Engineering

Civil Engineering  
Diesel Engineering  
Electrical Engineering  
Mechanical Engineering

Individual student schedules are made in conference with the Deans of the Schools. The degree of Bachelor of Business Administration in Engineering and Management is conferred upon completion of this program.

(Information concerning this program will be mailed upon request.)

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\* Not offered in 1939-40, but offered in 1940-41. Where subjects are not offered in a given year, the schedule is so arranged that students take alternate subjects without loss of time or program inconvenience.

## SCHEDULE OF CLASSES IN BOSTON

All classes meet from 7 P.M. to 9 P.M. unless otherwise indicated. Courses marked with a (1) are offered during the first semester and those marked with a (2) are offered in the second semester. All other courses run throughout the year.

<i>Evening</i>	<i>Subject</i>	<i>Opening Date</i>
	Accounting Aids to Management	September 18
	Agents and Agencies	September 25
	Cost Accounting	September 18
	Introductory Accounting (1)	September 25
<i>Monday</i>	Intermediate Accounting (2)	January 31
	Income Tax Procedure	September 18
	Industrial Management Problems and Policies	September 18
	Marketing	September 25
	Risks of Business (2)	April 15
	Torts and Crimes in Business (2)	February 5
<hr/>		
<i>Tuesday</i>	Business Administration Seminar	September 19
	C. P. A. Accounting Review	September 19
	Credits and Collections	September 19
	Financial Organization	September 19
	Market Law	September 19
<hr/>		
<i>Wednesday</i>	Business Economics	September 20
	Business and Industrial Management	September 27
	Introductory Accounting (1)	See Monday
	Intermediate Accounting (2)	See Monday
<hr/>		
<i>Thursday</i>	Accounting Problems	September 21
	Advanced Accounting Problems	September 21
	Business Contracts	September 28
	Business English	September 28
	Business Reports and Conferences (1)	September 21
	International Economic Relations	September 21
	Principles of Advertising (1)	September 21
	Principles of Purchasing (1)	September 21
	Psychology for Business and Industry (2)	February 8
	Public Speaking (2)	February 8
	Retail Store Advertising (2)	February 8
<hr/>		
<i>Friday</i>	Auditing (1)	September 22
	Business Planning and Research	September 22
	Business English	September 29
	Business Organizations	September 22
	Constructive Accounting (2)	January 26
	Department Store Administration (2)	January 26
	Economic Development of the U. S. (2)	January 26
	Investment Principles and Practices	September 22
	Principles of Production (1)	September 22
	Principles of Selling (1)	September 22
	Retail Store Management (1)	September 22
	Sales Management (2)	January 26
	Scientific Management (2)	January 26

The University reserves the right to withdraw in any year any course for which less than twelve enrollments have been received.

counts found in the more complex business organizations.

### **COST ACCOUNTING**

A 9-10 Prerequisite: A 3-4 Thirty-two sessions; 4 hours' credit.

Acquaints the student with the relationship of cost accounting to management and administration control and shows how adequate cost systems may further the intelligent management of business enterprises. Numerous problems serve as the basis for a study of the various accounts, records, systems, and methods commonly used in modern cost accounting.

### **AUDITING**

A 11 Prerequisite: A 3-4 Sixteen sessions; 2 hours' credit.

Accounting facts and practices are analyzed to determine whether or not they conform to professional practice. The work of the auditor in relationship to professional requirements, the mechanics of auditing, and the preparation of reports and certificates are studied.

### **INCOME TAX PROCEDURE**

A 13-14 Prerequisite: A 3-4 Thirty-two sessions; 4 hours' credit.

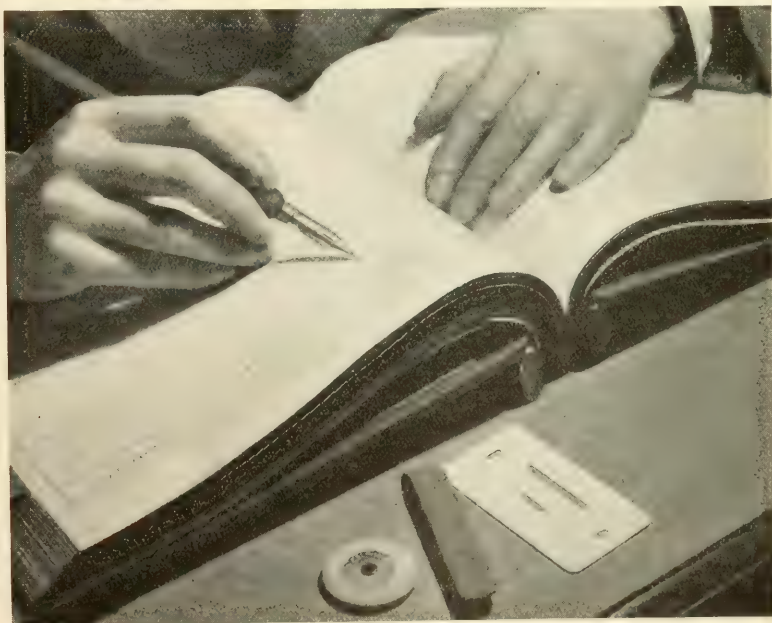
A detailed study is made of Federal and State tax laws, their administration and application to the incomes of individuals; partnerships, corporations, and fiduciaries; treasury and tax department regulations and rulings; and of the decisions of the Board of Tax Appeals, and of various Federal and State courts. Practice in making out reports and returns, and a study of the procedure of handling claims, form the basis of applied instruction.

### **CONSTRUCTIVE ACCOUNTING**

A 15 Prerequisite: A 3-4 Sixteen sessions; 2 hours' credit.

To acquaint students with the principles underlying the construction of accounting systems and the procedure of system installation. The course is developed by means of problem projects beginning with an analysis of the accounting needs of a small business. By gradual steps increasingly larger businesses are studied and accounting systems developed to meet their needs. Special attention is given accounting records in relation to the expansion of the accounting system.

A simple accounting transaction is the groundwork for proficiency as a C. P. A.





**ADVANCED ACCOUNTING  
PROBLEMS**

A 17-18 Prerequisite: A 7-8 Thirty-two sessions; 4 hours' credit.

This course is designed primarily to meet the requirements of those students who intend to enter the accounting profession or to assume responsibilities in commercial accounting. Emphasis in this course is devoted to specialized problems in connection with consolidations, mergers, holding companies, and other more advanced and complicated accounting situations. The course thoroughly prepares the student for the C.P.A. Accounting Review in final preparation for the State C.P.A. and American Institute examinations.

**C.P.A. ACCOUNTING  
REVIEW**

A 19-20 Prerequisites: A 9-10; A 11; A 17-18; L 1-2 Thirty-two sessions; 4 hours' credit.

This course provides a thoroughgoing and complete review of accounting theory and practice, and is intended primarily for those who contemplate taking the C.P.A. examinations. Practice in the classroom is provided under substantially the same conditions as exist in the C.P.A. examination room. Carefully selected problems, taken from C.P.A. examinations, in Accounting Theory and Practice are worked out in the classroom, and are supplemented by lectures, demonstrations, and test questions.

**DISTRIBUTION (D)**

*Marketing enters into and influences every field of business and includes not only the direct process of the sale of goods, but the whole organization by which goods find their way from the original producer to the ultimate consumer. The change in the economic structure during the past ten years growing out of higher standards of living, the development of new occupational interests, and the shift of population to large cities, has tended to increase the cost of marketing of goods. Just as the elimination of waste in production was the keynote of business fifteen years ago, the reduction of expense and the introduction of more efficient methods in distribution are the foremost thought of business leaders today. For this reason courses in marketing form one of the basic elements in a business education.*

**MARKETING**

D 1-2 Thirty-two sessions; 4 hours' credit.

An understanding of the various methods in common use for selling goods, and of the typical problems that arise in the course of distributing goods from the manufacturer through the middlemen and dealers to the consumers is provided. The selling problems of the manufacturer, the wholesaler, the retailer, and the specialty agent are studied in relationship to the various types of industries and commodities.

**PRINCIPLES OF SELLING**

D 3 Sixteen sessions; 2 hours' credit.

This course deals with the evolution of modern salesmanship, its history, development and opportunities. The psychology of selling, preparation for the interview, the proper approach, arousing the buying urge, the meeting of sales resistance, the closing of the sale and the qualities of good salesmen are among the topics discussed.

**SALES MANAGEMENT**

D 4 Sixteen sessions; 2 hours' credit.

This is a continuation of the course in the Principles of Selling. It includes study of the types of sales organizations, the work of sales executives, sales planning and policies, sales campaigns, management of the sales force,

financing of sales and the control of sales operations.

**PRINCIPLES OF ADVERTISING**

D 5 Sixteen sessions; 2 hours' credit.

A comprehensive course designed to familiarize the student with the nature and scope of advertising and its place in the commercial and economic structure. History, definition, and functions of advertising. Organization and functions of advertising departments and advertising agencies. Varieties of advertising and media. Problems, market investigation, planning campaigns. Laws, ethics, and regulations. A study of the broader aspects of advertising with special emphasis on current trends and developments.

**RETAIL STORE ADVERTISING**

D 7 Sixteen sessions; 2 hours' credit.

This course is devoted to the study of the elements of retail advertising. The various media used by retailers are considered with drill in the preparation of copy therefor. A study is made of institutional, straight merchandise, and sales copy as exemplified in current advertising of important retail concerns. The principles of layout receive attention as well as the mechanics of production including art work, plates, typography and printing. The aim is to furnish a practical foundation fitting students for a creative career in retail advertising.





*The efficient direction of goods to the consumer is the primary aim of business today*

## ENGLISH (E)

*The value that comes from the effective use of good English in business reports and communications is being increasingly emphasized by business leaders. All students who are candidates for the degree or certificate are required to pursue systematic courses in English. Those having outstanding deficiencies may be required to take additional courses in English.*

### BUSINESS ENGLISH

E 1-2 Thirty-two sessions; 4 hours' credit.  
Efficient training is provided in the use of correct and forceful English for business purposes. Practice in the construction of sales, collection, credit and application letters, business articles, reports and newspaper stories provides opportunities for written expression on business topics. Study is devoted to the elements of logic as related to the organization and expression of thought. The course includes study of the fundamentals of sales promotion practice with special emphasis on buying motives. Oral work in class is intended to prepare students for participation in business conferences and public meetings.

### ADVANCED ENGLISH

E 3-4 Prerequisite: E 1-2 or equivalent. Thirty-two sessions; 4 hours' credit.

Literature of value and interest to business men forms the basis of study and practice in writing so as to develop an effective easy style of expression. The student acquires a cultural basis which will serve not only as a source of entertainment in leisure hours but also an aid for business communications.

### PUBLIC SPEAKING

E 5 Sixteen sessions; 2 hours' credit.

Those who wish to speak convincingly, to overcome self-consciousness, and to develop self-confidence will find this course meeting their needs. Students are trained in the selection and organization of speech materials, the delivery of the speech, and in other important essentials of effective speaking. The entire course is practical and not theoretical. Work is centered around the interests and topics of business men and is specifically adapted to their needs.

### BUSINESS REPORTS AND CONFERENCES

E 6 Sixteen sessions; 2 hours' credit.

This course is devoted to the preparation and presentation of business reports and to the techniques of planning for, participating in, and conducting business conferences. These reports and conferences are based upon business problems and situations. The nature of a thesis, the selection of a subject, the preparation of an outline, the collection and organization of data are considered in this course. Students are given the fullest possible opportunity to participate actively at each session.

### BUSINESS READINGS

E 7 and E 8; 2 hours' credit for each course.

The two courses in Business Readings are designed to broaden the student's acquaintance with selected writings in the field of business; and to introduce him to the real pleasure and values that come from such reading. There are no required lectures for these courses, each of which carries two semester hours' credit and for which a charge of one semester hour is made.

At the beginning of the Upper Middler and the Junior years, each degree candidate registers for a Readings course and is furnished a list of titles from which he makes selections for reading in accordance with the course requirements. Written reports are submitted on these readings and are due on or before registering for classes the following year.

## ECONOMICS (Ec)

*Economics is the basic foundation upon which the general principles of business as a science are founded. A mastery of the underlying economic laws enables the student to see clearly the forces which business men must use in arriving at solutions to their problems. An appreciation and understanding of economics is a necessary factor in the equipment of a progressive business man.*

### BUSINESS ECONOMICS

Ec 1-2 Thirty two sessions; 4 hours' credit.

The characteristics of modern business and industry are studied in terms of their operations and relationship to the modern economic system.

Economic laws and principles are considered in terms of business conditions peculiar to our own time and country and how these laws govern prices, wages of labor, profits, credit, competition, work and working conditions, and reward for business enterprise.



*The effectiveness of a written or spoken word is one measure of man's business ability*

**FINANCIAL ORGANIZATION**

Ec 3-4 Prerequisite: Ec 1-2 Thirty-two sessions; 4 hours' credit.

The functions and services of money and credit as mediums of exchange are discussed. A detailed study is made of the organization and functions of modern financial institutions such as commercial banks, trust companies, investment security houses, savings institutions, stock exchanges, the Federal Reserve System, and other credit and financial institutions.

**INVESTMENT PRINCIPLES AND PRACTICE**

Ec 5-6 Thirty-two sessions; 4 hours' credit.

Consideration is given to the determination of investment policies and to the analysis of various kinds of securities such as types of bonds, preferred and common stocks, and their place and use in the investment field. Attention is also given to the economic factors and changes as they affect investments.

**BUSINESS STATISTICS AND FORECASTING**

Ec 7-8 Prerequisite: Ec 1-2 Thirty-two sessions; 4 hours' credit.

The objective of this course is to train the student to use statistics in making better an-

alyses of the business problems than is possible without statistics. The point of view of the business man and not the professional statistician is maintained throughout the study. In the early part of the course the emphasis is placed upon the necessary technical methods, using business problems as illustrations; in the second part of the course, the point of view is changed and the emphasis is placed upon solving practical problems, using statistical methods as tools when necessary. The practical application of statistics to business is directed toward business forecasting, business budgeting, production and labor, market analysis, investment and financial analysis, and executive and management statistics.

**ECONOMIC DEVELOPMENT OF THE UNITED STATES**

Ec 9 Sixteen sessions; 2 hours' credit.

A broad general survey is made of the economic and industrial development of the United States from the colonial period to the present time. Emphasis is placed upon the origin and development of American industries, changes in industrial and commercial policies, economic forces at work in business and social institutions, and upon problems arising from the growth and development of business and industry in the United States.

**LAW (L)**

*Underlying the ever increasing complexity of modern business is a growing body of law which defines and directs business operations. Except for Legal Aspects of Business, all law courses employ the case method of study used in the country's leading schools of law. The courses listed below are available in Boston. For courses in law offered by the Divisions, consult the Divisional Offices.*

**LEGAL ASPECTS OF BUSINESS**

L 1-2 Thirty-two sessions; 4 hours' credit.

A study of the application of legal machinery to the current needs and demands of modern business for facilitating organization, credit, finance, security or protection from risks, marketing, and commercial and industrial peace. The course also provides excellent preparation for the law phase of the C.P.A. Examination.

**BUSINESS CONTRACTS**

L 4-5 Thirty-two sessions; 4 hours' credit.

Their importance to the business man in the everyday conduct of his affairs; why contracts are necessary, how they are made and enforced; the subject matter of contracts, the rights and liabilities of the parties, the effect of failure to keep agreements, the effect of fraud, duress and

mistake; the termination of the contract relationship.

**AGENTS AND AGENCIES**

L 6 Sixteen sessions; 2 hours' credit.

The importance of agents or business representatives in present-day business; how they are appointed; the legal relationships among agent, employer and third parties; the duration of the agency and the methods of terminating it.

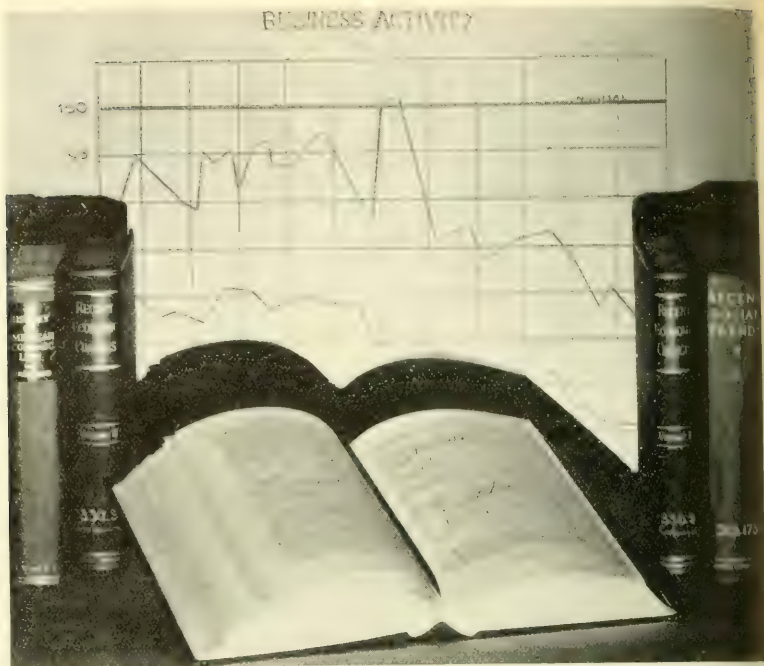
**RISKS OF BUSINESS**

L 7 Eight sessions; 1 hour credit.

The kinds of risks business men must assume and how some of these risks may be shifted to others; the formation and operation of insurance contracts affecting such risks as fire, explosion, transportation, theft, employer liability and interruption of business.



*The proper application of economic principles often means the solution of an actual business problem*



### **TORTS AND CRIMES IN BUSINESS**

L 8 Eight sessions; 1 hour credit.

The responsibility of the business man for such common torts and crimes as trespass, libel, slander, deceit, nuisance and assault; precautions that may be taken to minimize claims against businesses arising from acts of the corporation, its officers or its employees.

### **BUSINESS ORGANIZATIONS**

L 10-11 Thirty-two sessions; 4 hours' credit.

Problems of organizing various businesses; the forms of business enterprises, such as sole ownership, partnership, and the corporation; the powers and liabilities of business organizations and their officers; inter-corporate problems; rights of creditors and stockholders; problems of reorganization and the termination of a business organization's affairs.

### **MARKET LAW**

L 12-13 Thirty-two sessions; 4 hours' credit.

The entire legal problem of selling or marketing goods or services including sales and contracts to sell. The course includes a study of unfair and illegal market practices such as price-cutting, disparagement of a competitor or his goods, and the infringement of trade marks or trade secrets.

### **RIGHTS IN PRIVATE PROPERTY**

L 14-15 Thirty-two sessions; 4 hours' credit.

The nature and extent of ownership in personal property and real estate; rights represented by stock, bonds, patent rights and copyrights; the acquisition of real estate, rights and liabilities of owners, business leases, the landlord and tenant relationship, the transfer of ownership.

### **TAXES AND TAXABLE INTERESTS**

L 16 Sixteen sessions; 2 hours' credit.

Legal aspects of taxes as they affect the conduct of business; kinds of taxes, such as property taxes, excise taxes and income taxes; appeals of taxpayers; the taxation of corporations.

### **LABOR RELATIONS**

L 17 Sixteen sessions; 2 hours' credit.

The legal relation of employer and employee; the responsibility of employers for injuries, compensation legislation; competitive labor practices; unions, strikes, boycotts, blacklisting; modern legislation.

### **LAW OF FINANCIAL ORGANIZATION**

L 18-19 Thirty-two sessions; 4 hours' credit.

Legal devices for raising money and extending credit, such as promissory notes, bills of

exchange, checks, trade acceptances, bills of lading, warehouse receipts; suretyship, guaranty, liens, conditional sales and mortgages.

### **RIGHTS OF DEBTORS AND CREDITORS**

M 20 Sixteen sessions; 2 hours' credit.

The property of the debtor which may be used for payment of his debts; modes of collecting on debtor's property; rights of creditors in bankruptcy and other legal actions.

### **GOVERNMENT REGULATION OF BUSINESS**

L 21 Sixteen sessions; 2 hours' credit.

Regulation of competition, problems of monopoly, government bureaus and their operation, trade practices, recent trends in state and federal legislation. The powers and practices of such regulative bodies as the Interstate Commerce Commission, the Federal Trade Commission and the National Labor Relations Board are studied in detail.

## **MANAGEMENT (M)**

*With the complex and rapidly changing conditions of modern business, the functions of administration and management must be clearly defined and maximum economics effected. Through the problem approach, these courses train the student to supplant guesswork and trial and error processes with organized knowledge and proven management methods. Courses designated by the symbols M 3, M 4, M 6, M 13 and M 14 are offered in Boston only.*

### **BUSINESS AND INDUSTRIAL MANAGEMENT**

M 1-2 Thirty-two sessions; 4 hours' credit.

An introductory survey of the whole field of business and industrial administration with special emphasis upon training the student in the analysis of business and industrial problems. The functions of the business and industrial administrators are discussed with particular reference to the control policies and devices of the manager. The course presents the problems of business and industry as an interrelated whole and helps the student to see the lines of study which lead to solution of those problems.

### **PSYCHOLOGY FOR BUSINESS AND INDUSTRY**

M 5 Sixteen sessions; 2 hours' credit.

Business psychology is the study of predicting and influencing human behavior in business. It provides an understanding of man's mental life, of how the individual and the group behave and are influenced in their behavior, and of how the business man may predict and control his own behavior and that of those with whom he works. The study and analysis of the student's own personal problems and behavior constitute a valuable and interesting phase of the course.

### **PURCHASING**

M 6 Sixteen sessions; 2 hours' credit.

A practical study of the functions and duties of the purchasing agent, the organization and administration of his department, and his relations with other departments. The following are representative of subjects discussed: the purchasing function, qualifications of the purchasing agent, selection of supply sources, purchasing policies and budgets, cataloging information, testing and inspection of purchases, and stores control.

### **PRINCIPLES OF PRODUCTION**

M 3 Sixteen sessions; 2 hours' credit.

A basic treatment of the fundamental manufacturing processes. Topics studied include: factory organization, manufacturing and assembly sequences, selection and coordination of productive facilities, product design, inspection and salvage.

### **SCIENTIFIC MANAGEMENT**

M 4 Sixteen sessions; 2 hours' credit.

The practical application of the principles of scientific management to production problems. The course embraces study in process research including time and motion study, standardization of materials, analysis of operations, methods of production, and production control including wage incentive systems.

### **CREDITS AND COLLECTIONS**

M 7-8 Thirty-two sessions; 4 hours' credit.

This course furnishes instruction in the theory of credit, the workings of a Credit Department, whether in the wholesale or retail field, and in the analysis and use of credit statements as aids to efficient management.



*An appreciation of the problems of Management fits Northeastern men for quicker advancement*



### **INDUSTRIAL MANAGEMENT PROBLEMS AND POLICIES**

M 9-10 Thirty-two sessions; 4 hours' credit.

Co-ordination of the functional relationships which exist between the different departments of business with the problems affecting the determination of administrative and managerial policies is the purpose of this study. Special attention is given to scientific management of industry and business and to the co-ordination of production with purchasing, sales, finance, and transportation. Cases and problems dealing with organization and expansion, consolidation and combinations, reorganizations, internal administration, industrial and human relations, and governmental control form the basis of discussion and study.

### **GOVERNMENT CONTROLS IN BUSINESS**

M 11-12 Thirty-two sessions; 4 hours' credit.

A study of the economic and political relationships which exist between business and government with particular emphasis upon the work of the Interstate Commerce Commission, Federal Trade Commission, the National Recovery Act, and the various codes developed under that act, also other government agencies including the U. S. Departments of Agriculture, Commerce, Labor, and particularly the Bureau of Labor Statistics. Social as well as economic aspects of government control will be considered.

### **RETAIL STORE MANAGEMENT**

M 13 Sixteen sessions; 2 hours' credit.

Devoted to a careful study and analysis of the fundamental principles underlying the successful operation of retail stores. Among the topics treated are store location, types of store organization, merchandise control, store systems receiving, marking, delivering expense control and problems of general policy.

### **DEPARTMENT STORE ADMINISTRATION**

M 14 Sixteen sessions; 2 hours' credit.

Deals with administrative and executive problems of the larger retail merchandising institutions. A study will be made of the organization and operation of the various departments including merchandising, operating, publicity, customer service, internal service, and personnel.

### **BUSINESS PLANNING AND RESEARCH**

M 17-18 Prerequisite: Ec 7-8 Thirty-two sessions; 4 hours' credit.

This course is devoted primarily to a study of economic and business planning and to the technique of research and study in relationship to planning. The fundamental principles underlying the solution of research problems will be analyzed and students will be required to apply those principles to specific problems involving planning and research.

### BUSINESS ADMINISTRATION SEMINAR

M 19-20 Prerequisites: A 5 6, D 1-2, Ec 3-4, Ec 7-8. Thirty-two sessions; 4 hours' credit.

This course provides the unique opportunity to use the information acquired from other courses in an intelligent intimate discussion of

live current problems which arise daily in marketing, production, and finance, with notes as to social significance. Emphasis is placed on the translation of problems out of the academic book atmosphere into the personal terms in which these problems must be met in business life and solved. Work is conducted upon a prepared individual conference basis.

### THESIS (T)

#### BACHELOR'S DEGREE THESIS

T 3-4, 4 hours' credit.

Each candidate for the B.B.A. degree may submit a thesis or the Business Readings reports. The conditions to be fulfilled in connection with thesis are:

- 1. The selection of the subject, preparation of the outlines, and the collection of data must be worked out in accordance with the requirements of the Committee on Theses.
- 2. Two typewritten copies of the completed thesis must be presented to the Dean, or the

Director in the Divisions, not later than March 15 of the year in which the candidate expects to graduate.

- 3. The thesis is expected to meet the equivalent of the work required in a full-year course. It is expected to give evidence that its writer has made a thorough study of the subject or problem selected, that he has marshaled the data in a businesslike manner, and has given evidence of his ability to reach sound and reasoned conclusions, and to present his findings in clear and convincing terms.

### OCCUPATIONAL EXPERIENCE

The School considers that knowledges, skills and experiences acquired in a business position are equivalent to work carried on in a laboratory. Credit for business or occupational experience to the extent of 24 semester hours is allowed at the rate of eight semester hours during each of the

last three years the student is in attendance. All members of the three upper classes who expect to become candidates for a degree or certificate, are required to file a detailed occupational experience form, which is used as a basis of determining occupational experience credit.



A section of  
the University  
Library

# School of Business

## *General Information*

### **CLASSROOMS AND LIBRARIES**

The classrooms are furnished with modern equipment and are thoroughly adapted to evening school work. Improvements in classroom facilities are constantly being made to meet the needs of the student body.

The General Library of the University in Boston contains 23,138 volumes. A special section of the General Library is devoted to books on business subjects. In addition, the leading trade and business magazines are available for student use. Additions are constantly being made to the business section of the Library in recognition of the new demands for business education and research. The reading rooms of the Library are open from 8.45 A.M. to 10.30 P.M. daily, Sundays from 2 P.M. to 9 P.M., holidays 12 M. to 9 P.M.

All members of the School in Boston are entitled to the privilege of using the Boston Public Library including the Business Branch at 20 City Hall Avenue. The same privilege is accorded students in the Divisions for the use of the libraries in their respective cities.

Appreciable libraries to which additions are constantly being made are available in the Divisions at Worcester, Springfield, and Providence.

### **TEXTBOOKS AND SUPPLIES**

The Northeastern University Bookstore is a department of the University and is operated for the convenience of the student body. All books and supplies which are required by the students for their work in the University may be purchased at the Bookstore. In addition, the Bookstore also carries a large number of general supplies. In Boston the main store is situated in the basement of the West Building.

In the Divisions, stores are located adjacent to the School Offices.

### **RECREATION AND OTHER ACTIVITIES**

Men who are employed in offices or indoor occupations and who are pursuing a strenuous evening program of study should plan to take some systematic form of exercise in order that they may not impair their health and that they may do the most effective work.

Northeastern University is particularly fortunate in being able to place at the disposal of its students at moderate rates unexcelled recreational advantages. The Y.M.C.A. buildings have facilities in the nature of gymnasiums, swimming pools, bowling alleys, billiard rooms, game rooms, and social rooms where students obtain recreational privileges to their liking. Students may come from their work at the close of the day to the university building and enter a gymnasium class, take a swim, use the bowling alleys, or engage in other recreational pastimes before class time and thus renew their energy for the evening's work.

In addition, in the program of the various Young Men's Christian Associations will be found ample opportunities for religious, club, and other social activities.

Women students in the Worcester Division enjoy corresponding privileges at the Y.W.C.A.

### **STUDENT COUNCIL**

The social and extra-curricular life of the School in Boston is in charge of a Student Council consisting of representatives from each class or school group. In addition to arranging for occasional social affairs, special lectures, and meetings, the council represents the interests of the student body. The faculty and the officials advise with the council in regard to school policies.



## HONOR FRATERNITY

Sigma Epsilon Rho is the only honor fraternity in the School of Business authorized and approved by the University. Its purposes are:

- 1 To promote acquaintance and good fellowship among those men who have attained highest scholastic standing in the School.
- 2 To stimulate the student body to higher scholastic accomplishment through the bearing, influence, and work of these selected men.
- 3 To develop methods of mutual improvement and advancement among the members of this fraternity.
- 4 To support high moral, professional and scholastic ideals.

Only students with honor standing are admitted to the fraternity. Admission is by invitation, after nomination by the School faculty.

An outstanding business book is awarded each year by Sigma Epsilon Rho Fraternity to the highest ranking student for that year in each of the Sophomore, Lower Middler, Upper Middler, and Junior Classes. Students will receive the award only in the event that they enroll for the subsequent year.

## SCHOLARSHIPS, AWARDS, AND LOAN FUNDS IN BOSTON

The following scholarships and awards are available to students enrolled for a normal schedule of twelve or more semester hours of class work who are pursuing a degree or certificate program in the School of Business in Boston. One-fourth of the scholarship is applied to the tuition of the recipient at each quarterly payment.

### *School of Business Honor Awards*

A half tuition scholarship award is made each year to the highest ranking student of that year in the Junior, Upper Middler, Lower Middler, Sophomore and Freshman classes, who re-enrolls the following year for a normal schedule of study.

A quarter tuition scholarship award is made each year to the second highest ranking student of that year in the Junior, Upper Middler, Lower Middler, Sophomore and Freshman classes, who re-enrolls the following year for a normal schedule of study.

To be eligible for either a half or a quarter tuition honor award, a student entering the School with advanced standing credit, except by examination, must have completed at least twenty-four semester hours of classroom work at the time the award is made.

### *The Clarkson-Alumni Scholarship*

This scholarship, made available through the generosity of the Alumni Association of the School of Business in Boston, is in memory of George S. Clarkson, a member of the Class of 1914 and an instructor in accounting for many years. This scholarship, which is indeterminate in amount, is granted to the student who obtains the highest final grade in the course in Auditing unless he is eligible for an award of greater monetary value in which event the Clarkson-Alumni award will be made to the highest ranking student in Auditing who is not eligible for such an award. To be eligible for this scholarship the student must pursue a normal schedule the following year.

### *Kappa Tau Phi Scholarship*

This scholarship award, amounting to thirty dollars, is made available by the Kappa Tau Phi Sorority. It is granted annually to the woman student who ranks highest in her class at the end of the Sophomore year unless she is eligible for an award of greater monetary value in which event the award will be made to the highest ranking woman student who is not eligible for such an award. To be eligible for this scholarship the student must pursue a normal schedule the following year. In determining this award grades of all courses completed in the Freshman and Sophomore years shall be considered.

### *Alumni Loan Fund*

The Alumni Association of the School of Business in Boston has provided a loan fund which is available to students in the Senior and Junior classes in Boston who are in need of financial assistance in order to continue their studies. Applications for loans should be addressed to the Bursar of the University. All applications must be approved by the Alumni Loan Fund Committee.

### **IN SPRINGFIELD DIVISION**

The following scholarship and loan funds are available to students applying for, or admitted to, curricula offered by the Springfield Division of the University:

#### *Junior Scholarship*

A scholarship of \$25 applicable to tuition of the next year is awarded annually at Commencement to that student of the Junior Class who has made the highest average grade in all courses from his Freshman to Junior years inclusive. The scholarship is donated by Delta Chapter of the Pi Tau Kappa Fraternity.

#### *Middle Scholarship*

A scholarship of \$25 is awarded annually to that student of the Middle Class, School of Law, or to the Lower Middle Class, School of Business, who has made the highest average grade in all courses of the first three years. The scholarship is donated by Sigma Nu Upsilon Sorority.

#### *Sophomore Scholarship*

A scholarship of \$25 applicable to tuition of the next year is awarded annually at Commencement to that student of the Sophomore class who has made the highest average grade in all courses of the first two years. The scholarship is donated by Alpha Chapter of the Epsilon Phi Sigma Fraternity.

#### *Freshman Scholarships*

Awards in multiples of twenty dollars toward Freshman tuition are available to applicants for admission. They are made upon the basis of academic excellence for, and at the termination of, the required previous academic training. One of these

is granted to that student who, of the first ten in average for the school or college, as the admission requirement may necessitate, shall stand highest of the number from that institution who applied for admission in the subsequent fall to Northeastern University, Springfield Division.

### *Student Aid Fund*

A limited fund originated by thoughtful undergraduates, augmented by certain faculty support, and the balance in a given year from student activities fees, from which meritorious students may obtain loans from time to time for tuition usage. It is administered by the Director of the Division. Applications for aid should be made through the Bursar.

### **IN WORCESTER DIVISION**

#### *Freshman Scholarships*

Awards of \$50 toward Freshman tuition are available to graduates of several Worcester County high schools. They are made upon the basis of academic excellence for, and at the termination of, the full secondary school course. One of these is granted to that student who, of the first five in average for the school course, shall stand highest of the number from this group who anticipate admission the subsequent fall to Northeastern University, Worcester Division.

#### *Sophomore Scholarship*

A scholarship of \$50 is awarded at Commencement to that student of the Sophomore class who has made the highest average grade in all courses of the first two years, and who returns for the third year. The scholarship is applied toward the payment of the tuition of that year.

#### *Senior Honor Award*

An award of \$20 is made annually at Commencement to that student of the Senior class who has made the highest average grade in all courses from his Freshman to his Senior years, inclusive. This award is subject to certain regulations on file with the Governing Board of the Division.



# School of Business

## *Administrative Policies*

### ADMISSION AND CLASSIFICATION OF STUDENTS

#### *I. Classification as to Admission*

All applicants admitted for degree, certificate, or special programs or for single courses are classified as regular or conditioned students.

#### **1 Regular Students\*\***

Applicants for admission who present evidence of the completion of an approved secondary school course, or the equivalent 15 units,\* may be admitted as regular students in the Accounting, Management, and Law and Business programs.

#### **2 Conditioned Students\*\***

Applicants who do not meet the requirements for admission as regular students may be admitted as conditioned students with the approval of the Committee on Admissions under the following conditions:

- a. Applicants 21 years of age or older who do not present evidence of the completion of an approved secondary school course, or the equivalent 15 units\* may be admitted if they present satisfactory evidence of ability to profit by study in the School.
- b. Applicants between the ages of 18 and 21 who have completed at least 8 units\* of secondary school work and who wish to pursue individual courses may be admitted provided they present evidence of ability to profit by such study and, in addition, pass the prescribed aptitude tests.

#### **3 Removal of Conditions\*\***

Conditioned students (except that those who are between 18 and 21 years of age may not use *d* as a basis for the removal of conditions) may remove their admission conditions and be reclassified as regular students by using *a*, *b*, *c*, *d*, or any combination of *a*, *b*, and *c*:

- a. By applying courses which they have completed in the School of Business at the rate of one unit for each two semester hours. (A course cannot be credited both towards the removal of admission conditions and towards the degree.)
- b. By applying units for work completed in an approved secondary school.
- c. By passing the examinations of the College Entrance Examination Board.
- d. By maintaining an average scholastic grade of 70% in the prescribed program for the first twenty-four semester hours of work in the School, except that in no case may this program be spread over a period to exceed three years. Conditioned students must take the prescribed Aptitude Tests in the same school year in which they file their intentions to become candidates for a degree or a certificate. Credit earned prior to taking the Aptitude Tests cannot apply as a part

\*A unit represents a year's work in any subject in any approved secondary school constituting approximately a quarter of a full year's work, or the equivalent. A four-year day high school course is regarded as representing at least 15 units of work, or 3 units in junior high school and 12 units in a three-year senior high school.

\*\*For additional requirements for the Engineering and Business curriculum in the Worcester and Springfield Divisions, consult special bulletins or the Divisional offices.

of the prescribed program of twenty-four semester hours for the 70% scholastic grade. The Aptitude Tests are designed to select students qualified by general ability to profit by a university course in business. They are not examinations in the subject matter of the secondary school course, and no specific preparation can be made for them. They are to test intellectual capacity and general fitness for university work rather than preparation for specific subjects.

Reclassification under this plan is not based upon any single factor but upon all factors affecting the achievement and ability of the student in the School. Students who fail to qualify for reclassification by this method may still be permitted to meet the requirements under *a*, *b*, and *c*.

## II. Classification as to Program

Applicants who, at the time of admission, signify their intentions to qualify for the degree or certificate are further classified as degree or certificate students. Those who do not signify their intentions to qualify for the degree or certificate, but who desire to take one or more subjects are listed as unclassified students.

## III. Advanced Standing

Advanced standing credit in the School may be obtained in one or both of two ways, as follows:

**1 By Transfer of Credit.** Subject to the approval of the Administrative Committee, credit may be given for work completed in other approved schools, colleges, and universities. Applicants desiring credit by transfer should indicate their desire at the time the application for admission is filed. A copy of the

catalog of the institution from which the transfer is sought should accompany the application for admission.

**2 By Examination.** Applicants who desire to secure Advanced Standing Credit by examination are required to apply in writing for examination in those subjects for which credit is sought. Proper forms should be obtained from the School Office and filed at the time the application for admission is filed. Applications for examinations are approved by the Committee on Administration who will take into account previous training, business experience, and other factors showing the applicants' special preparation and ability in the subject or subjects in which credit is sought by examination.

A grade of 75% must be obtained in an examination in order to secure advanced standing credit for the subject. Upon successfully passing an examination, the applicant is given full credit as though the subject had been pursued in the School.

The same subject cannot be offered both for admission credit and as a basis for advanced standing.

## REGISTRATION

Before attending classes, students should report at the School Office for registration. Students are requested to assist in lessening congestion during the opening week by registering during the two weeks previous to the opening of the School.

Late registration for those unable to enter at the opening of the School year will be permitted at the discretion of the Dean, or the Director in the case of the Divisions.

## THE SCHOOL YEAR

The School year is thirty-two weeks in length, exclusive of the two weeks' vacation at Christmas time, and is divided into two semesters of sixteen weeks each.

## CLASS SESSIONS

In Boston, Worcester, and Springfield classes are held each evening of the week except Saturday. In Providence, classes are held on Monday, Wednesday, and Friday evenings. *The normal schedule for students pursuing a degree or certificate program is three evenings a week. Students may arrange their schedules so as to attend classes one, two, three, or four evenings a week depending upon the number of subjects taken.* Students interested in the schedule of classes of any particular city should apply to the office of the school in the city in which they expect to attend.

## NOTIFY THE OFFICE IMMEDIATELY

Of change of address.

Of withdrawal from any course — otherwise the fee for that course will be charged.

Of withdrawal from the School, giving date of the last session attended.

## ATTENDANCE

The limited amount of time devoted to each subject and the rapid rate of progress in covering the essential content of a course make it highly desirable that students be present at every session. Because of the importance of regular attendance and its bearing upon the quality of scholarship, the policies governing attendance are:

- 1 Students who attend 75% or more sessions in a course are entitled to pass in that course if they attain a minimum final grade of D.
- 2 Students who attend between 50% and 74% of the sessions in a course are entitled to pass in that course if they attain a minimum final grade of C. Those who do not attain the minimum required grade of C may remove the condition only by means of a make-up examination in which they must receive a mark sufficient to raise the course grade to C.
- 3 Students who attend less than 50% of the sessions in a course will be considered

ineligible to take the final examination or to receive any credit for the course.

- 4 Attendance credit is granted only when the student is in attendance at least three-quarters of the class period. Three separate absences of less than 30 minutes each constitute one complete absence unless such partial absences are canceled by satisfactory excuses.

## OUTSIDE PREPARATION

It is expected that students will devote on the average two hours to preparation for each hour spent in the classroom. A student carrying a normal program of three evenings a week will, therefore, be expected to devote to outside preparation an average of eleven to twelve hours a week. Some courses require more time for preparation than others.

## REGULAR EXAMINATIONS

The general policies governing regular examinations are:

- 1 A final examination will be held at the end of each course unless an announcement to the contrary is made.
- 2 The minimum passing grade in a regular final examination is D.
- 3 In case a student is excused from a final examination by the Administrative Committee, he may take the next regular or conditioned examination in the subject. The student who fails to complete a course within one year from the termination of that course must repeat the course, except that in special cases for justifiable cause, the Administrative Committee may waive this rule.
- 4 The student who has received a passing mark in a final examination and in a course may not take another examination for the purpose of raising his grade unless he repeats the course in its entirety.

## CONDITIONED EXAMINATIONS

The following policies govern re-examinations:

- 1 Permission for taking a make-up examination is dependent upon the quality of the work which the student has done throughout the course and is a privilege which the Administrative Committee may grant to students who have received an E grade or an incomplete (Inc.).
- 2 The conditioned or make-up examinations are given in September. Students should consult the School Office for the specific dates of each examination.
- 3 Only one make-up examination in any given subject is allowed for the purpose of removing a conditional failure.
- 4 A make-up examination for purposes of removing a conditioned or incomplete grade must be taken within the next school year. In such cases students may take either the examination at the conditioned examination period or the final examination when next given if within a period of one year. A fee of \$2 is charged for each School of Business examination taken out of course.
- 5 A minimum grade of 65% is required on each make-up examination unless a higher minimum is specified by the Administrative Committee.
- 6 Whatever grade the student obtains on the make-up examination is credited as the final examination grade, but in no case can the final grade in the course be more than 70% except in the case of students who have been excused from taking the regular final examination.

## TESTS

Four tests in full-year courses and two tests in half-year courses are regularly scheduled. These tests are regarded as a part of the term or course work. Since no make-up tests are given, students who miss a test should confer with their instructors regarding their status.

## MARKS AND CREDITS

- 1 The following system of grading is in use:

Superior Work, A; Above Average Work, B; Average Work, C; Lowest Passing Grade, D; Unsatisfactory Work, E; Failure, F; Incomplete, Inc.

Students receiving an E, or unsatisfactory work grade, in an examination or as a final grade in the course, may remove the unsatisfactory grade by taking a make-up examination when it is next given, or at the time of the conditional examinations in September. The minimum passing grade of 65% is required on the make-up examination, unless a higher minimum is designated. In no case will a student taking a make-up examination be allowed more than a C for a final grade even though a higher grade may be obtained.

The policy is followed of mailing all grade and status reports to students instead of issuing these reports at the School Office or over the telephone.

- 2 A passing grade in a final examination as well as a passing final grade in the course is necessary in order to receive credit in the course.
- 3 Credit for one-half of a full-year course is not generally given, and in any event only upon approval by the Dean in advance of beginning the course.
- 4 In order to qualify for a degree or a certificate the student must maintain a general average of C for the entire program. This is not interpreted to mean that each course must be passed with a grade of C, but that the average of all courses must be at least C. Grades of courses credited by transfer or by examination are not included in computing averages.



**GRADUATION WITH HONORS**

Honors are based upon the excellence of the work performed by the students in the School. Three honorary distinctions are conferred upon properly qualified candidates for the bachelor's degree upon graduation:

- 1 Highest honors to those who have completed all work with an average of 95% with no grade less than C.
- 2 High honors to those who have completed all work with an average of 90% with no grade less than C.
- 3 Honors to those who have completed all work with an average of 85% with no grade less than C.

These honors are subject to further conditions as follows:

To be entitled to honors a student must have completed a minimum of two full years of study in the School.

Courses credited by advanced standing whether by transfer or by examination will be eliminated in determining honors.

**PROBATION AND DISCIPLINE**

The Administrative Committee in dealing with students whose work in the School may be unsatisfactory or whose conduct is

such as to make it inadvisable for them to continue as members of the student body, considers each case upon its individual merits. The following general principles are kept in mind in handling such cases:

- 1 Students whose scholarship in any given year is unsatisfactory may be dropped from the School or may be placed on probation with the privilege of spending a year in review.
- 2 Students whose scholastic record for two successive years is unsatisfactory, and who have been placed on probation for a year, will probably be counseled with and advised to make a readjustment of their programs by pursuing other types of training.
- 3 When a student is placed on probation, the probation is formally imposed for a definite time and can only be extended by approval of the Administrative Committee.
- 4 The Administrative Committee has the authority to dismiss from the School or place on probation at any time or to strike off from the list of candidates for the degree, any student whom it may deem unworthy either on account of unsatisfactory scholarship or for any great defect of conduct or character. The Committee may ask any student to withdraw from the School who is obviously out of sympathy with the aims and ideals of the School.



# School of Business

## *Tuition and Other Fees*

### **MATRICULATION FEE**

The University matriculation fee of \$5 must accompany the initial application for admission to the University. This fee is not refundable.

### **TUITION FEES**

Tuition fees for courses in the School of Business are based on a charge of \$10 a semester hour.

#### *Complete Programs*

A student carrying a normal program of three full-year courses throughout the school year will complete twelve semester hours of work for which the charge is \$120. This charge is payable in four payments of \$30, the first being due during the opening week of school and the other three during the weeks of November 20, January 22, and March 11.

#### *Single Courses*

The charge for each half-year course carrying two semester hours' credit is \$20, payable in two payments of \$10, and for each full-year course carrying four semester hours' credit, \$40, payable in four payments of \$10, except that payment for any course must be made during the semester in which the course is completed.

#### *Deferred Payment Privilege*

Students who would be denied the advantages of a systematic education if required to meet the tuition payments in the manner specified above, may make other payment arrangements with the Bursar. A nominal charge is made for this service.

#### *Courses in Other Departments of the University*

School of Business students assigned to courses in other departments of the University are charged the tuition rates and other fees effective in the departments to which they are assigned.

### **LATE REGISTRATION**

No reduction in tuition is made for late registration. A student is neither entitled to classroom privileges nor considered as registered and enrolled until tuition due has been paid or satisfactory arrangement made in person with the Bursar.

### **STUDENT ACTIVITIES FEE**

An activities fee is charged all students on the following basis:

\$1 for students enrolled for courses not exceeding four semester hours.

\$2 for students enrolled for courses exceeding four semester hours.

The fee is payable during the opening week in September. Students registering in the second semester pay the fee at the time of registration. It is administered by the University authorities in the interest of the students, and is used primarily to promote extra-curricular activities.

### **OTHER FEES**

A fee of \$2 is charged for each make-up examination or advanced standing examination. This fee must be paid on or before the date of the examination.

A fee of \$10 is charged for each of the Business Readings courses. One half is payable with the September tuition pay

ment and one half with the January tuition payment. This fee applies only to those who elect to submit Business Readings in lieu of a thesis, and is payable during the Upper Middler and Junior years, or when the Business Readings reports are submitted.

A thesis fee of \$20 is required of all degree candidates who elect to write theses. This fee is payable upon presentation of the thesis which is due not later than March 15 of the year in which the student expects to receive the degree.

The University graduation fee, charged to those who are candidates for a degree, is \$10, payable on or before May 1st of the year in which the student expects to graduate. A fee of \$5 is charged to all candidates for a certificate and is payable on or before May 1st of the year the program is to be completed.

### **EXPENSE FOR BOOKS AND MATERIALS**

Students purchase their own textbooks and working materials. The cost varies according to the subjects for which the student is enrolled. The average cost for a normal program of three subjects is about \$13, with a maximum of approximately \$20. The textbooks for single courses range from \$1.25 to \$5.

### **GENERAL FINANCIAL INFORMATION**

Checks should be drawn payable to Northeastern University.

Students who have withdrawn from a course for good cause and who are permitted to repeat it are credited with the tuition previously paid on that course. The credit cannot be applied, however, until the balance due on the course has been paid.

Students are not permitted to attend class sessions or take any examinations or

tests until they have paid their tuition fees or have made satisfactory arrangements for payments.

Students will not be advanced in class standing, or permitted to re-enroll in the University, nor will degrees be conferred until all financial obligations to the University have been met.

No certificate of honorable dismissal will be issued to any student who has not fully met his financial obligations to the University.

### **WITHDRAWALS AND REFUNDS POLICY**

In the event a student is obliged to withdraw from the School in which he is enrolled for causes deemed adequate by the Committee on Withdrawals, the balance of the tuition paid after the following deductions have been made will be refunded:

- a.* Four per cent of the total yearly tuition charge shall be deducted for each week of attendance or fraction thereof, in the event of enrollment for a full school year.
- b.* Ten per cent of the total tuition charged shall be deducted for each week of attendance or fraction thereof, in the event of enrollment for a semester.

The amount of tuition to be charged in the case of withdrawals shall be computed as indicated under *a* and *b* above from the date of each quarterly payment.

Matriculation, examination, thesis, and other fees are not refundable except that graduation and certificate charges will be refunded in case of non-qualification.

No refunds are granted unless the application for withdrawal is filed within forty-five days after the student has ceased attendance.

# School of Business

## Degrees Conferred and Theses Presented in 1938

### BOSTON

#### BACHELOR OF BUSINESS ADMINISTRATION

GEORGE WALIER ALTVATER, *A Comparison of State Fund Plans and Private Carriers in the Field of Workmen's Compensation Insurance*

WILLIAM CHARLES ANDERSON, *Comparison of Four Investment Counsel Houses*

VITO BARRAVECCHIO, *Cost Techniques Applied in a Plant Manufacturing Chocolate Covered Confections*

HOWARD ERNEST BATCHELDER, *Economic Factors of the Private Building Industry*

EDWARD WHITNEY CAINE, *The Investment Record of Equipment Trust Certificates*

WALKER ALEXANDER CARROLL, *Is Government Ownership of Railroads the Answer to the United States Railroad Problem?*

CHARLES CREIGHTON, *An Accounting System for Country Clubs*

HELEN GREENE CROWLEY, *Accounting—Its Importance and Place in the Printing Industry*

ROSE GREENE CROWLEY, *Analysis of the Accounting and Merchandising Factors of Retail Outlets in the Oil Burner Industry*

FREDERICK HUNTON DURKEE, *Postage Stamps as a Source of Income*

CHARLES WINDSOR FAIRBANK, *A Proposed Program for the Control of the Costs of Production of a Work Shoe Manufacturer*

EDWARD ISRAEL FOGEL, *A Study of Distribution and Pro-Ration of Expenses in Department Stores*

GEORGE MOSSIN HANSEN, *An Investment Analysis of the Common Stocks of Six Leading Variety Chain Systems*

JOHN DUNCAN HUNTER, *A Brief Study of the Commercial Paper Business*

HENRY WILLIAM KONET, *Planning and Controlling Costs and Production, with Particular Reference to Eyeglass Case Manufacture*

LEON JOSEPH LITCHFIELD, *A Comparative Study in the Possibility of Fuel Oil Remaining in Competition with Coal and Gas for Use in the Domestic Heating Field*

JAMES CHESTER MARTELL, *Control of Production of Petroleum with Special Reference to the Connally Bill and Cole Compact*

CHARLES FREDERIC MAXFIELD, *Production Planning and Control of Electrical Instruments*

CARLISLE EATON MOODY, *Reporting Operations to Stockholders*

WALTER KENNETH MUEHLBERG, *The Investment Aspects Involved in the Establishment of a Four Thousand Tree Apple Orchard*

DONALD OLIVER NYLANDER, *Accounting Manual for an Electrical Retail Dealer*

JOHN JOSEPH O'CONNOR, *An Explanation of Accounts Appearing in Present Day Balance Sheets*

WILLIAM HENRY PITCHER, *Northeastern United States Chemical Wood Pulp Producers Cannot Successfully Meet Domestic and Foreign Competition in the Future*

RALPH CORTLAND RAYMOND, *Some Important Problems in Marketing Domestic By-Product Coke and Methods Used by Leading Producers in Their Solution*

CHARLES PRESTON RICHMOND, *The Effect of Technological Changes Upon Railroad Labor in Maintenance of Way and Structures*

ROBERT WILLIAM SHERBURNE, *Introductory Accounting Presented to Meet Individual Differences in Students*

LEO SILK, *A Study of Defects in the Financing of Mortgage Loans*

JAMES MORRISON STEWART, *An Analysis of the Development of Personal Accident Insurance in the United States*

FRANK BENTO VIETAS, *The Chain Store as a Factor in the Distribution of Shoes*

### WITH HONOR

EARL BERTRAM WEBB, *Proposed Accounting Procedure for State-Aided Vocational Schools. Particular Emphasis Laid Upon Inventory Control*

#### MASTER OF BUSINESS ADMINISTRATION

GEORGE AUGUST EUERLE, *A Study of the Factors which May Limit the Future Development of the Oil Burner Industry*

**WORCESTER DIVISION**

BACHELOR OF BUSINESS ADMINISTRATION

**WITH HONOR**

LAWRENCE JAMES GOULDEN, *Analysis of a Control System for a Public Utility Power Plant*

CHARLES HENRY PEIX, *A Flexible Incentive as a Means towards Increasing Profits and Employees' Good Will*

MASTER OF BUSINESS ADMINISTRATION

RICHARD HOWARD LECOUR, *A Study of the Demand Rates of the Worcester Electric Light Company*

**SPRINGFIELD DIVISION**

BACHELOR OF BUSINESS ADMINISTRATION

HOWARD JOHN CHAPIN, *A Study in Modern Automobile Financing and Accounting*

ANDREW LINTON, JR., *A Proposed System for Elimination of Dust in the Drawing Process in the Manufacture of Linen Thread*

PETER CHARLES DULAK, *Development of a System for a Photo-Lithographing Company*

ROBERT BENNETT MACPHERSON, *Cost Accounting System for a Medicinal Product Producer*

ERNEST ADELBERT DUNHAM, *A Study of the Social Aspects of Claim Work with Particular Reference to Centralization vs. Decentralization*

WILLIAM MAX MINKLEY, *Budgetary Control for a Small Worsted Mill*

FRANK ORLO ISHAM, *Will the Diesel Supplant the Gasoline Engine as a Power Plant for Automobiles?*

ROBERT WHEELER PEASE, *A Study of the Opportunities of the Life Insurance Companies in the Field of Old Age Security*

RICHARD HUDSON LAKE, *A Proposed Method of Storeroom Layout and Control for a Department Store*

HAROLD HENRY ROBERTS, *A Study of the Problems of Launching the 1939 World's Fair at New York City*

MASTER OF BUSINESS ADMINISTRATION

ALWYN FREDERICK YEATMAN, *Consumers' Cooperatives and Their Place in our Social and Economic Structure*

**PROVIDENCE DIVISION**

BACHELOR OF BUSINESS ADMINISTRATION

WILLIAM STANLEY ARNOLD, *Cost Accounting at a Worsted Mill*

THOMAS LEE FRANCIS KELLEY, JR., *Budgetary Control of Expenditures in the State of Rhode Island*

HOWARD WILLIAM CHATTO, *Costs of Plant Maintenance as a Vital Factor in Production of a Textile Dyeing, Printing and Finishing Plant*

JANET JOSELYN LOPEZ, *The Compilation of Standard Costs in the Pile Fabrics Industry*

JAMES DECIANTIS, *A Method of Computing Dyeing and Finishing Costs in the Velvet Industry*

MADISON HALE MORTON, *The Allocation of Administration Expenses in a Department Store*

ARTHUR JAMES DUFFY, JR., *Budgetary Control and Its Application to a Specific Manufacturing Concern*

EDWARD FELICE NUCLO, *Organization and Management of Fluid Milk Co-operative Associations*

WALTER ARNO HOFMANN, *Accounting and Marketing Aspects of Consignments*

ANTHONY SCORPIO, *Wage Incentive Plans with a Recommendation for an Installation in a Screw Machine Plant.*

MASTER OF BUSINESS ADMINISTRATION

NORMAN EUGENE HORAN, *The Establishment of Material, Labor, and Expense Standards in the Jewelry Industry*



# School of Business

## Register of Students, 1938-39

### BOSTON

ADLER, RICHARD J.  
 AHEARN, JAMES J.  
 ANDERSON, ALFRED F.  
 ANDERSON, FRANK T.  
 ANDERSON, ROBERT F.  
 ANDERSON, ROY C. A.  
 ASH, VIRGINIA G.  
 AYER, BERNARD F.  
 BABIN, EDWARD J.  
 BAKER, CYRIL F.  
 BAKER, HARRY D.  
 BAKER, MURIEL  
 BANKOFF, EDWARD W.  
 BARNARD, MYRVEN W.  
 BARNETT, LOUIS H.  
 BARRESE, EDWIN  
 BARTON, CHARLES S.  
 BAUMAN, WILLARD F.  
 BEATON, ARTHUR K.  
 BELDEKAS, ARTHUR  
 BELSHUNAS, ANN M.  
 BENTLEY, HORACE E.  
 BERNSTEIN, ISADORE H.  
 BETLEY, WALTER P.  
 BEYER, FREDERICK A., JR.  
 BICKFORD, EUGENE E.  
 BISSON, E. WILLIAM  
 BLAIR, BELMONT A.  
 BLAIR, FRANK C., JR.  
 BOETJE, GERARD H.  
 BOND, CHESTER E.  
 BORNSTEIN, BARNET  
 BOUCK, DELBERT  
 BOUDREAU, ARTHUR J.  
 BOURQUE, RITA L.  
 BOWEN, RALPH F.  
 BOWERS, HAROLD B.  
 BOWLER, ARTHUR W.  
 BOYLE, JAMES H.  
 BOYLE, THOMAS P.  
 BRAUNFELD, FRANK J.  
 BRAYMAN, MINERVA  
 BRENNAN, JOHN J.  
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 BRICK, HARRY A.  
 BRIDGHAM, ALBERT F.  
 BRIODY, JOHN F.  
 BROOKS, THOMAS W.  
 BROWN, DAVID N.  
 BROWN, JOSEPH J.  
 BROWN, MILO F., JR.  
 BUCK, JACK G.  
 BUCKLEY, JOHN A.  
 BULGARIS, ARTHUR C.  
 BUNTEN, ANDREW D.  
 BURAK, MELVIN  
 BURKE, ANDREW C.  
 BURKE, WILLIAM A.  
 BURNETT, LESTER J.  
 BURNS, JAMES F.  
 BUSHEY, CHARLES E.  
 CABANA, FREDERICK P.  
 CALLAHAN, FRANCIS J.  
 CALLAHAN, JOHN J.  
 CANNISTRARO, NICHOLAS  
 CAPONE, HAROLD N.  
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 CARROLL, ALFRED S.  
 CARY, CHARLES O.  
 CASPERSON, CARL E.

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 Danvers  
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 Medford  
 Westwood  
 Hyde Park  
 Woburn  
 Malden  
 Dorchester  
 Boston  
 Natick  
 Belmont  
 Chelsea  
 West Roxbury  
 Malden  
 Somerville  
 Beverly  
 Boston  
 Allston  
 Boston  
 Hudson  
 Winthrop  
 Chelsea  
 Roxbury  
 Hyde Park  
 Hingham  
 Manchester, N. H.  
 Boston  
 Milton  
 Dedham  
 Everett  
 Dorchester  
 Boston  
 Arlington  
 Amesbury  
 Attleboro  
 Concord  
 Winchester  
 Boston  
 Mattapan  
 Nashua, N. H.  
 Roxbury  
 Somerville  
 Allston  
 Boston  
 Braintree  
 Taunton  
 Lynn  
 Lynn  
 Somerville  
 Brookline  
 Medford  
 Roxbury  
 East Boston  
 Watertown  
 Dorchester  
 Island Creek  
 Brighton  
 Malden  
 Cambridge  
 Waltham  
 Cambridge  
 Somerville  
 Winchester  
 Waltham  
 Boston  
 Belmont  
 Somerville  
 Wellesley Hills  
 Jamaica Plain  
 Readville

CASPERSON, JOHN H.  
 CAVE, ELEANOR S.  
 CHALFIN, JOHN  
 CHAPMAN, WALTER H.  
 CHERRY, ROBERT W.  
 CHODOSKI, STANLEY J.  
 CLARK, FRANK D.  
 CLARK, WILLIAM H.  
 CLAYTON, GEORGE R.  
 CLEVELAND, RICHARD A.  
 CLEWES, ALICE E.  
 CLIFFORD, JOSEPH L.  
 COCKCROFT, LILLIAN M.  
 COFFEY, JOHN R.  
 COFFIDIS, JOHN J.  
 COHEN, BERTRAM L.  
 COHEN, I. HERBERT  
 COHEN, REUBEN  
 COLE, FREDERICK G.  
 COLLINS, FLOYD A.  
 COLLINS, VINCENT M.  
 COLOTTI, CARMINE J.  
 COMSTOCK, MARY A.  
*B.B.A., Northeastern University*  
 CONNOLLY, WILLIAM A., JR.  
 CONNOR, JAMES L.  
 COOK, CHARLES E.  
 COOKSON, EVERETT D.  
 COOLEY, ELEANOR L.  
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*S.B., Harvard College*  
 COOPER, JOSEPH  
 COOPER, WALTER C.  
 CORAINE, NATALE  
 CORCORAN, ELEANOR J.  
 CORCORAN, THOMAS E.  
 COREY, LOUIS A.  
 COSTELLO, THOMAS J.  
 CRANE, WILLIAM H.  
 CREIGHTON, WILLIAM J.  
 CRONIN, JOHN E.  
 CROWLEY, WILLIAM  
 CUMMINGS, JOHN J.  
*B.C.E., Northeastern University*  
 CUNDARI, EDWARD J.  
 CURRY, THOMAS H.  
 CURTIS, DONALD E.  
 DAHLBERG, EDWARD L.  
 DAHLBY, MILDRED A.  
 DANTZKER, PHILIP F.  
 DAVIDSON, DONALD H.  
 DAVIS, MARJORIE  
 DAWES, ALBERT E.  
 DECOURCY, DONALD J.  
 DEFELICE, ANTONIO  
 DELANEY, JAMES B., JR.  
 DEMONTIGNY, ARTHUR E.  
 DENNISON, FRANCIS R.  
 DERBYSHIRE, ROBERT M.  
 DEVENS, CHARLES  
*A.B., Harvard College*  
 DEVITT, WALTER F.  
 DEWAR, DONALD J.  
 DICKINSON, M. JOHN, JR.  
 DI FRANCO, FRED A.  
 DIVIRGILIO, JAMES V.  
 DOBROW, SIDNEY P.  
 DONNELLY, BERNARD F.  
 DONNELLY, FRANCIS M.  
 DOORLY, PAUL H.  
 DOTEN, ARTHUR W.  
 DOYLE, FRANK J.  
 DOYLE, JAMES J.

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 Charlestown  
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 Methuen  
 Revere  
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 Kendall Green  
 Everett  
 Weymouth  
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 Dorchester  
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 Lynn  
 Winthrop  
 North Easton  
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 East Boston  
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 Allston  
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 Roxbury  
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 West Somerville  
 Arlington  
 Dorchester  
 West Medford  
 Swampscott  
 Arlington  
 Cambridge  
 Franklin  
 Arlington  
 Framingham  
 Malden  
 Wakefield  
 Brighton  
 Dorchester  
 South Boston  
 Boston  
 Medford  
 West Roxbury  
 Quincy  
 Lynn  
 Medford  
 Brockton  
 Medford  
 Lynn  
 Belmont  
 Natick  
 Medford  
 North Quincy  
 Waltham  
 Milton  
 North Saugus  
 Hyde Park  
 Melrose  
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 Lynn  
 Lynn  
 Cambridge  
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 Needham  
 South Boston  
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JOYLE, JOHN P.	Cambridge	GUENETTE, ALBAN	Salem
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		HANJIAN, NUBAR	Lynn
		HANJIAN, RALPH M.	Lynn
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AGERMAN, FRANK	Roxbury	<i>B.E.E., Northeastern University</i>	
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ALLIS, ROBERT E.	South Boston	HATFIELD, ALVIN C.	Dedham
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ALLERSON, LEIGHTON R.	Quincy	HENDRIX, WILLIAM W.	Medford
		HENRY, ROBERT P.	Cambridge
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ARMEDMAN, MURRAY M.	Chelsea	<i>A.B., Amherst College</i>	
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ARSTEL, ARTHUR P.	Jamaica Plain	HOELSCHER, EDWARD K.	Cambridge
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ARENCH, EARL R.	Worcester	HVOSLEF, ARTHUR M.	Hyde Park
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ARMMONS, ALBION F.	Methuen	JACKSON, IRENE C.	Boston
ARMNON, ROBERT F.	Brighton	JACKSON, WILLIAM M.	Framingham
ARABEDIAN, JOHN S.	Holbrook	JAMES, ROBERT W.	Lexington
ARMR, STUART L.	Dorchester	JEFFERSON, WILLIAM F.	Cambridge
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ARMAY, NORMAN L.	Medford	JENKINS, WALTER W.	Malden
ARMEDGES, ANNE E.	Dorchester	JEWETT, ALLAN W.	Roxbury
ARMEMELLI, JOSEPH C.	Dorchester	JOHNIDES, CONSTANTINE J.	Boston
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ARMERRISH, WINSLOW F.	Melrose	JOHNSON, CLIFFORD E.	Brockton
ARMARRIZZO, LAWRENCE P.	Arlington	JOHNSON, ERNEST C.	Dorchester
ARMIBSON, EARL F.	Forest Hills	<i>LL.B., Northeastern University</i>	
ARMILBERT, ALLISTER C.	Watertown	JOHNSON, LEONARD V.	Lynn
ARMILLESPIE, ROBERT E.	Lynn	JOHNSON, WALTER B.	Dedham
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ARMILMORE, ROBERT A.	Belmont		
ARMINSBURG, CARLETON	Brookline	KAPLAN, LOUIS	Roxbury
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ARMLOWACKI, WALTER W.	Lawrence	KARP, JACOB	Salem
ARMOLDFINE, ISRAEL	Malden	KEEFE, CATHERINE J.	Norwood
ARMOLDSTEIN, MOSES	Peabody	KEELER, EVERETT B.	Brighton
ARMOODMAN, PHILIP H.	Roxbury	KELLEGREW, RAYMOND S.	Cambridge
ARMOODRICH, EARLE A.	Cambridge	KELLY, JOSEPH M.	Newton Center
ARMOODWIN, THEODORE T.	Framingham	<i>LL.B., Northeastern University</i>	
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ARMORE, BERNARD L.	Everett	KENNEDY, KATHRYN A.	Somerville
ARMORFINKLE, LEONARD M.	Boston	KENNEY, WILLIAM J., JR.	Brookline
ARMOTTLEB, MORRIS J.	Dorchester	KEOUGH, GEORGE E.	Saugus
ARMOUGH, ROBERT J.	Medford	KESSEL, ABRAHAM	Revere
ARMGRACE, EDWARD P.	Holliston	KETHRO, JOHN G.	Framingham
ARMGRAY, ROBERT H.	Reading	KEYES, MARGARET	West Medford
ARMGREEN, ARNOLD S.	Rosindale	KIDD, WILLIAM	Boston
ARMGREENE, GEORGE S.	Brookline	KILDUFF, JAMES F.	Boston
ARMGREENOUGH, HAROLD F.	Somerville	KOE, ARTHUR W.	Dorchester
<i>B.I.E., Northeastern University</i>		KOLLEN, EDWARD H.	Cambridge
ARMGREGERMAN, EDWARD B.	Dorchester	KONETZKY, E. WALTER	Rosindale
ARMGROHMAN, MAX	Peabody	KOPIECKI, ALBERT D.	Lynn
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KORNATOWSKI, EDWARD T. W.  
 KRAMER, HOWARD C.  
 KUBIAK, GEORGE  
 KUEMPEL, PETER  
 KULLBERG, WINSTON A.  
 KUNDIN, THEODORE J.  
 KURLA, IVAN A.  
*B.S., Lehigh University*

LADD, WALTER I.  
 LALLY, WILLIAM E.  
 LANCAON, JUAN S.  
 LANDRY, GEORGE A.  
 LANES, EARLE E.  
 LANES, MAURICE  
 LANGILL, LLOYD V.  
 LAPLANTE, ETHEL S.  
 LARSON, CLIFTON C.  
 LARSON, LENNART J.  
 LAUZON, LEONARD G.  
 LAWRENCE, ARNOLD W.  
 LEADBETTER, WILLIAM G.  
 LEE, PERCY L.  
 LENNON, ERNEST J.  
 LETHBRIDGE, WILLIAM J.  
 LEVIN, HAROLD  
 LEVINE, IRVING N.  
 LEVINE, MORRIS  
 LEVINE, THOMAS  
 LEWIS, FRANK C.  
 LIEBMAN, ISRAEL D.  
 LIEHR, HERMAN P.  
 LINEHAN, JOHN J.  
 LINICK, ABRAHAM S.  
 LINNEKIN, PHILIP E.  
 LINSKOTT, EARLE E.  
 LIVINGSTON, J. ALBERT  
 LOCKE, ROBERT W.  
 LOTHROP, JAMES K., JR.  
 LOVERME, MARY C.  
 LOWE, JOHN E.  
 LYNCH, WILLIAM F.

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 Belmont  
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Weston  
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 Revere  
 Gloucester  
 Sudbury  
 Arlington  
 Lowell  
 Roxbury  
 Danvers  
 Somerville  
 Quincy  
 Rosindale  
 Needham  
 East Boston  
 Cambridge  
 Dorchester

MICHAEL, WILLIAM S.  
 MICHAUD, STANLEY E.  
 MIHALOPOULOS, LAMBROS A.  
 MILGROOM, THEODORE  
 MINICHIELLO, ARTHUR F.  
 MITCHELL, JOHN F.  
 MITCHELL, JOSEPH F.  
*LL.B., Northeastern University*  
 MOHR, JOHN W.  
 MONAC, E. JOSEPH  
 MOORE, RALEIGH J.  
 MORANO, MICHAEL  
 MORASH, WALTER H.  
 MORRIS, WARREN W.  
 MOSCA, JOHN  
 MOSGOFIAN, SIMON  
 MOVITZ, PHILIP  
 MUDGETT, LUCILIUS E.  
 MUEHLBERG, WALTER K.  
*B.A., Northeastern University*  
 MURPHY, CATHERINE M.  
 MURPHY, EDWARD P.  
 MURPHY, GEORGE V.  
 MURPHY, JAMES E.  
*B.E., Yale University*  
 MURPHY, JEREMIAH J.  
 MURPHY, RICHARD F.  
 MURRAY, GLENN J.  
 MURRAY, JOSEPH P.  
 MURSTEIN, LEON  
 MYETTE, ARTHUR F.

NAGLE, DAVID P.  
 NAGLIN, H. LAWRENCE  
 NEWMAN, JOHN, JR.  
 NEWPOL, EDWARD  
 NOBLE, JOHN D.  
 NURNBERGER, CHARLES E.  
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*B.A., Northeastern University*  
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*B.A., Northeastern University*

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 O'CONNOR, THOMAS J.  
*B.S., Tufts College*  
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 OLIVER, DOROTHY W.  
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 OSVAR, HYMAN J.  
 OWENS, THOMAS J.

PACINI, ALBERT  
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 PARKER, FORREST K.  
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 PAUL, GORDON D.  
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 PHILLIPS, DONALD R.  
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 POPE, GEORGE B., JR.  
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 PORTER, WILLIAM D., JR.  
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 PROCTOR, HAROLD I.  
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 Roxbury  
 Brookline  
 East Boston  
 Marlboro  
 Brockton

Brookline  
 Dorchester  
 Malden  
 East Boston  
 Watertown  
 Cambridge  
 Lawrence  
 Chelsea  
 Dorchester  
 Malden  
 Malden  
 Ashmont  
 Cambridge  
 Quincy  
 Boston  
 Lawrence  
 Jamaica Plain  
 Boston  
 Wollaston  
 Roxbury  
 Malden

Brighton  
 Dorchester  
 Rosindale  
 Dorchester  
 Malden  
 Woburn  
 Dorchester  
 Dorchester

Watertown  
 Watertown  
 Somerville  
 Lynn

Boston  
 Kingston  
 Beverly  
 West Somerville  
 Winthrop  
 Medford

Boston  
 East Weymouth  
 Boston  
 East Boston  
 Chelsea  
 Melrose  
 Roxbury  
 Winchester  
 Winchester  
 Islington

Auburndale  
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 Worcester  
 Revere  
 Boston  
 Somerville  
 Lynn  
 Quincy  
 Roxbury  
 Quincy  
 Needham  
 Dorchester  
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 Melrose  
 Boston  
 Watertown  
 Waltham  
 Wollaston  
 Beverly

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 MALONE, ARTHUR F.  
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 MANNIS, FRANCIS L.  
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 MASON, OTTO C.  
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 MEYERS, HARRY J.

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 Reading  
 Dorchester  
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 Stoughton  
 Rosindale  
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 Dorchester  
 Brookline  
 Dorchester  
 Medford  
 Brighton  
 Rosindale  
 South Weymouth  
 Milton  
 East Boston  
 Beverly  
 Norwood  
 Dorchester  
 Boston  
 Brighton  
 Roxbury  
 Malden  
 Weymouth  
 Waban  
 Brighton  
 Woburn  
 Allston  
 Lynn  
 South Boston  
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 Milton  
 Neponset  
 Lynn  
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 Somerville  
 Brookline  
 East Dedham

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B.S., Worcester Polytechnic Institute			
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Died October 24, 1938.



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RAY, WILLIAM R.	Providence	SPEAKMAN, DONALD C.	Riverside
RAYMOND, JAMES E.	Providence	SPEEL, J. KENTON	Providence
READETT, EVERETT F.	Cranston	STODDARD, GORDON H.	Riverside
RENIER, JOHN U.	Edgewood	STREJCEK, GEORGE	Providence
A.B., <i>Bowdoin College</i>		SUTCLIFFE, GEORGE H.	Seekonk, Mass.
REAKIN, ELLIOT	Providence	SWANSON, MYRON G.	Providence
RHODES, GEORGE W.	Cranston	TASCA, RICHARD G.	Providence
RHODES, JOHN A.	Cranston	THOMASON, FRANCIS N.	Pawtucket
RICHER, JOHN B.	Pawtucket	THOMPSON, EDWARD F.	Providence
RICHMOND, C. PRESTON	Providence	THORP, WILLIAM R.	Attleboro Falls, Mass.
RIETH, RALPH F.	Auburn	TULCHIN, ABRAHAM	Fall River, Mass.
RIGBY, JACK	Greystone	TURNER, EDWARD W.	Providence
RINEBOLT, LEWIS G.	Seekonk, Mass.	TURNER, WILLIAM, JR.	East Providence
ROGERS, RICHARD M.	Pawtucket	TUTTLE, DONALD B.	Norw.
ROSE, W. CHESTER	Woonsocket	TUTTLE, JAMES GRANT	Cranston
ROSEN, BENTON H.	Providence	VIGEANT, GEORGE J., JR.	Woonsocket
B.S., <i>Rhode Island State College</i>		WALLACE, WILLIAM K.	Providence
ROSS, NORMAN R.	Pawtucket	WALTHER, GRACE B.	Riverside
ROUSSEAU, ARTHUR J.	Cranston	WATTERSON, FRANCIS R.	Providence
RUBIN, MARION	Woonsocket	WESTCOTT, CHARLES H., JR.	Edgewood
SCHULTZ, WILLIAM B.	Providence	WHITE, JOHN F.	Providence
SCOTT, ROBERT S.	Hillsgrove	WILBUR, ERNEST W.	Providence
SEEGAL, HARRY	Pawtucket	WILBUR, OLIVER S.	Glendal.
SENERCHIA, PASCO R.	West Warwick	WILMARTH, LOUIS R.	Attleboro, Mass.
SHANNON, JOHN A.	Providence	ZORA, JOHN D.	Providence
SHARPE, ALBERT A.	Attleboro, Mass.		
SHERMAN, ELIZABETH B.	Providence		





# NORTHEASTERN UNIVERSITY

## COLLEGE OF LIBERAL ARTS

Offers a broad program of college subjects serving as a foundation for the understanding of modern culture, social relations, and technical achievement. Varied opportunities available for vocational specialization. Degree: Bachelor of Science or Bachelor of Arts.

## COLLEGE OF ENGINEERING

Offers curricula in Civil, Mechanical, (with Diesel, Air Conditioning, and Aeronautical options), Electrical, Chemical, Industrial Engineering, and Engineering Administration. Class room study is supplemented by experiment and research in well-equipped laboratories. Degree: Bachelor of Science in the professional field of specialization.

## COLLEGE OF BUSINESS ADMINISTRATION

Offers three curricula: Accounting, Banking and Finance, and Business Management. Each curriculum represents in itself a broad survey of business technique, differing from the others chiefly in emphasis. Degree: Bachelor of Science in Business Administration.

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## SCHOOL OF LAW

Offers day and evening undergraduate programs admitting those who present a minimum of two years of college work, each program leading to the degree of Bachelor of Laws. Also graduate program in the evening leading to the degree of Master of Laws. Co-educational.

## SCHOOL OF BUSINESS

Offers curricula through evening classes in Accounting, Management, Law and Business Management, and Engineering and Business leading to the degree of Bachelor of Business Administration in specified fields or the Bachelor of Commercial Science in Law and Business Management. Preparation for C.P.A. Examinations. Shorter programs may be arranged. Co-educational.

## EVENING DIVISION OF THE COLLEGE OF LIBERAL ARTS

Offers a three-year evening program equivalent in hours to one-half of the requirement for the A.B. or B.S. degree. Provides general education and preparation for admission to the School of Law. Associate in Arts title conferred. Co-educational.

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The Colleges of Liberal Arts, Engineering, and Business Administration offer day programs for men only and are conducted on the co-operative plan. After the freshman year students may alternate their periods of study with periods of work in the employ of business or industrial concerns at ten-week intervals. Under this plan they gain valuable experience and earn a large part of their college expenses.

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In addition to the above schools the University has affiliated with it and conducts: the Lincoln Technical Institute offering, through evening classes, courses of junior college grade in various fields of engineering leading to the title of Associate in Engineering; and the Lincoln Preparatory School, an evening school preparing for college entrance and offering other standard high school programs.

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*For further information regarding any of the above schools, address*

## NORTHEASTERN UNIVERSITY

360 Huntington Avenue, Boston, Massachusetts

Telephone: KENmore 5800

WORCESTER, MASS.  
766 Main St.  
Tel.: Wor. 5-6101

SPRINGFIELD, MASS.  
114 Chestnut St.  
Tel.: Spr. 6-3681

PROVIDENCE, R. I.  
160 Broad St.  
Tel.: Gaspee 6357

# NORTHEASTERN UNIVERSITY

COLLEGE OF LIBERAL ARTS

Evening Division

Coeducational



1939 : 1940

Boston - - Massachusetts

*For further information or an interview address:*

EBEN O. SMITH, *Director*  
Northeastern University  
College of Liberal Arts  
Evening Division  
360 Huntington Avenue  
Boston, Massachusetts

#### OFFICE HOURS

*Fall and Winter Schedule*

Aug. 16, 1938 — June 19, 1939 and  
Aug. 16, 1939 — June 18, 1940 incl.  
Daily (except Saturdays and Sundays)  
8:45 A.M. — 9:30 P.M.  
Saturdays, 8:45 A.M. — 1:00 P.M.

*Summer Schedule*

June 20, 1939 — Aug. 15, 1939  
Daily (except Saturdays and Sundays)  
9:00 A.M. — 4:00 P.M.  
Saturdays, 9:00 A.M. — 12:00 M.  
Tel.: KENmore 5800

NORTHEASTERN UNIVERSITY

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COLLEGE OF LIBERAL ARTS

Evening Division

Coeducational

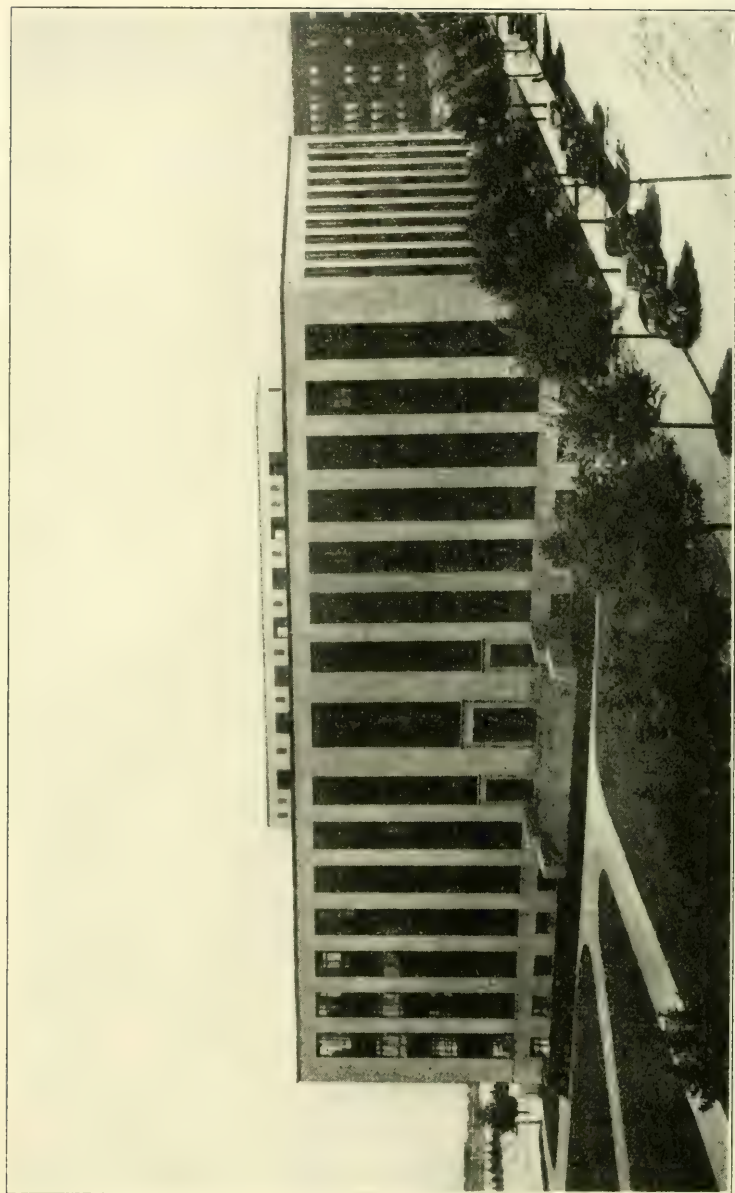


1939 : 1940

*Three Year Program in general education  
and preparation for Law School admission*

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NORTHEASTERN UNIVERSITY—WEST BUILDING

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## COLLEGE OF LIBERAL ARTS

### EVENING DIVISION

### CALENDAR

#### *First Semester*

1939	Sept. 11-15	Make-Up Examinations
	Sept. 11-23	Registration
	Sept. 18, Monday	Classes begin
	Oct. 12, Thursday	Columbus Day (Classes suspended)
	Nov. 30, Thursday	Thanksgiving Day (Classes suspended)
	Dec. 21, Thursday	Last Class before Christmas Recess
1940	Jan. 3, Wednesday	First Class after Christmas Recess
	Jan. 15-19	First Semester Examinations

#### *Second Semester*

1940	Jan. 22, Monday	Classes begin
	Feb. 22, Thursday	Washington's Birthday (Classes suspended)
	Apr. 19, Friday	Patriots' Day (Classes suspended)
	May 6-10	Second Semester Examinations

#### *Third Semester*

1940	May 13, Monday	Classes begin
	May 30, Thursday	Memorial Day (Classes suspended)
	June 17, Monday	Bunker Hill Day (Classes suspended)
	July 4, Thursday	Independence Day (Classes suspended)
	July 22-26	Third Semester Examinations
	July 27-Sept. 21	Summer Recess

All classes are held at convenient evening hours between 6:30 and 9:30 P.M.

# Northeastern University

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## *Administrative Organization*

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### THE NORTHEASTERN UNIVERSITY CORPORATION

ROBERT GRAY DODGE  
*Chairman*

FRANK LINCOLN RICHARDSON  
*Vice-Chairman*

FRANK PALMER SPEARE  
*President of the University*

GALEN DAVID LIGHT  
*Secretary and Treasurer*

CHARLES FRANCIS ADAMS  
WILMAN EDWARD ADAMS  
ROGER AMORY  
EARL D. BABST  
ROBERT BALDWIN  
ARTHUR ATWOOD BALLANTINE  
GEORGE LOUIS BARNES  
THOMAS PRINCE BEAL  
FARWELL GREGG BEMIS  
PAUL CODMAN CABOT  
WALTER CHANNING  
WILLIAM CONVERSE CHICK  
EVERETT AVERY CHURCHILL  
PAUL FOSTER CLARK  
SEARS B. CONDIT  
ALBERT MORTON CREIGHTON  
WILLIAM JAMES DAVIDSON  
JAMES DEAN  
HENRY STURGIS DENNISON  
PAUL AUGUSTUS DRAPER  
CHARLES FRANCIS EATON  
CARL STEPHENS ELL  
JOSEPH BUELL ELY  
TIMOTHY JAMES FALVEY  
FREDERIC HAROLD FAY  
ALLAN FORBES  
EDWARD J. FROST  
FRANKLIN WILE GANSE  
GEORGE PEABODY GARDNER, JR.  
HARVEY DOW GIBSON  
MERRILL GRISWOLD  
HENRY INGRAHAM HARRIMAN  
CHANDLER HOVEY

HOWARD MUNSON HUBBARD  
ARTHUR STODDARD JOHNSON  
HENRY CAMPBELL JONES, JR.  
HALFDAN LEE  
EDWARD ABBOTT MACMASTER  
JOHN RUSSELL MACOMBER  
JOSEPH PATRICK MANNING  
HAROLD FRANCIS MASON  
HUGH DEAN McLELLAN  
IRVING EDWIN MOULTROP  
CLARENCE LUCIAN NEWTON  
OLAF OLSEN  
GEORGE EDWIN PIERCE  
ROGER PIERCE  
MATTHEW POROSKY  
FREDERICK SANFORD PRATT  
HARRY WENDELL PROUT  
SIDNEY RABINOVITZ  
JAMES LORIN RICHARDS  
CHARLES MILTON ROGERSON  
ROBERT BILLINGS RUGG  
LEVERETT SALTONSTALL  
RUSSELL HENRY STAFFORD  
FRANCIS ROBERT CARNEGIE STEELE  
CHARLES STETSON  
ROBERT TREAT PAINE STORER  
FRANK HORACE STUART  
EDWARD WATSON SUPPLE  
JOHN EDWIN TOULMIN  
BAYARD TUCKERMAN, JR.  
ELIOT WADSWORTH  
EDWIN SIBLEY WEBSTER

### THE EXECUTIVE COUNCIL

FRANK PALMER SPEARE, M.H., LL.D., *President of the University*

GALEN DAVID LIGHT, A.B., *Secretary and Treasurer of the University*

CARL STEPHENS ELL, A.B., M.S., Ed.M., Sc.D., *Vice-President of the University*

EVERETT AVERY CHURCHILL, A.B., Ed.D., *Vice-President of the University*

# *Northeastern University and Affiliated Schools*

## STATISTICAL SUMMARY

1937-1938

	<i>Administrative Officers and Faculty</i>	<i>Students</i>
I. General Administration	8	
II. Northeastern University		
College of Liberal Arts	}	
College of Engineering		
College of Business Administration		79
School of Law		1,905
School of Business	46*	1,949*
	101*	1,531*
III. Schools affiliated with and conducted by Northeastern University		
Lincoln Schools	52	1,048
Huntington Day School for Boys		
Regular Term	16	197
Summer Term	9	122
	-----	-----
Total	311	6,752
Less Duplicates	39	460
	-----	-----
Net Total	272	6,292

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\*These figures include the administrative officers, faculties and students of the Divisions of the University in Worcester, Springfield and Providence.



## *Purpose and Program*

**N**ORTHEASTERN University from the outset has been developed around the simple yet practical purpose of meeting human needs in distinctive and serviceable ways, maintaining flexibility in program and organization in order that constant adjustment could be made to changing needs.

Pursuant to this purpose, the University has evolved a definite plan of education which embraces primarily Co-operative Education by day and Adult Education by night. So far as the New England States are concerned, Northeastern University is the only institution whose day colleges, other than the School of Law, are conducted under the Co-operative Plan. The several schools and programs of the University are operated either under the name "Northeastern University" or by its affiliated schools, the Lincoln Schools, and The Huntington Day School for Boys. The following is a brief outline of the principal types of educational opportunities offered.

1. In the field of Co-operative Education there are three day colleges — the College of Liberal Arts, the College of Engineering, and the College of Business Administration. All of these colleges offer five-year curricula. The College of Liberal Arts offers majors in the usual fields of the arts and the sciences leading to the degrees of Bachelor of Arts and Bachelor of Science. The College of Engineering, one of the largest engineering colleges in the United States, has curricula in Civil, Mechanical (with Diesel, Air-Conditioning, and Aeronautical options), Electrical, Chemical, and Industrial Engineering. The College of Business Administration has curricula in Accounting, Banking and Finance, and Business Management. The College of Engineering and the College of Business Administration confer the degree of Bachelor of Science with specification indicating the field of specialization. The Co-operative Plan under which all of these day colleges operate enables the student to alternate regular periods of classroom instruction with supervised employment in an industrial or commercial position, thus combining theory and practice in an exceedingly effective manner. Apart from the educational advantages of the Co-operative Plan is the opportunity for self-support while the student is pursuing his studies at Northeastern University. During the co-operative periods, students not only gain experience but are also paid for their services. Approximately three hundred business and industrial concerns co-operate with Northeastern University in making this program effective.
2. The School of Law conducts both a day and an evening undergraduate program which prepares for admission to the bar and for the practice of the law and leads to the degree of Bachelor of Laws. It also conducts a graduate program in the evening leading to the degree of Master of Laws.

3. The Adult Education Program has been developed in the evening work of the School of Law as indicated above, in the School of Business, and in the Evening Division of the College of Liberal Arts. The School of Business has curricula in Management, Accounting, Law and Business Management, and Engineering and Business. The School awards the Bachelor of Business Administration degree with specification and the Bachelor of Commercial Science degree in Law and Business Management. The Evening Division of the College of Liberal Arts offers an evening program the equivalent in hours to two years of college work, providing a general education and preparation for admission to the School of Law. The title of Associate in Arts is conferred upon those who complete this program.
4. In order that larger groups of men and women might be served through its evening schools, Northeastern University operates divisions of the School of Law and the School of Business in co-operation with the Young Men's Christian Association in Worcester and Springfield and of the School of Business in co-operation with the Providence Young Men's Christian Association. With the establishment of the divisions thoroughgoing methods of supervision were instituted and have been consistently followed and improved, with the result that the divisional work is conducted upon a highly efficient basis.
5. The Adult Education Program has also been developed through the Lincoln Schools, which are affiliated with and conducted by Northeastern University. The classes in these schools are held at convenient evening hours. The Lincoln Technical Institute offers curricula upon a junior college level in various phases of engineering leading to the title of Associate in Engineering; whereas the Lincoln Preparatory School, accredited by the New England College Entrance Certificate Board, prepares students for admission to college and offers other standard high school programs.
6. The Huntington Day School for Boys, also affiliated with and conducted by Northeastern University, is the outgrowth of a demand in the city of Boston for an urban preparatory school with high educational standards which would furnish thorough preparation for admission to the leading colleges and universities. While easily accessible to the various sections of Boston and to the suburbs, it has the facilities of a country day school and offers a country day school program. This School is one of the leading preparatory schools of the country.

### *Organization*

Northeastern University is incorporated as a philanthropic institution under the General Laws of Massachusetts. The State Legislature, by special enactment, has given the University general degree granting powers.

The Corporation of Northeastern University consists of men who occupy responsible positions in business and the professions. This Corporation elects from its membership a Board of Trustees in whom the control of the institution is vested. The Board of Trustees has four standing committees: (a) an Executive Committee which serves as an Ad Interim committee between the regular meetings of the Board of Trustees and has general supervision of the financial and educational policies of the University; (b) a Committee on Housing which has general supervision over the buildings and equipment of the University; (c) a Committee on Funds and Investments which has the responsibility of administering the funds of the University; (d) a Development Committee which is concerned with furthering the development plans of the University.

The Board of Trustees has also created, through its by-laws, an Executive Council, consisting of the President, the Secretary, and the two Vice-Presidents of the University. To the Executive Council the Board has allocated broad powers.

## *Location of University Buildings*

Northeastern University is located in Boston, a city which is rich in educational and cultural opportunities. The University center is on Huntington Avenue just beyond Massachusetts Avenue and opposite the Boston Opera House. Here on a six and one-half acre campus are located the educational buildings of the University except that of the School of Law. The classes of the Evening Division of the College of Liberal Arts are all held at the University center on Huntington Avenue.

### **West Building**

The West Building at 360 Huntington Avenue contains over one hundred thousand square feet of floor space devoted to administrative and instructional purposes. On the first floor are the general administrative offices of the University. The University bookstore, the "Husky Hut" and the student checkroom are located in the basement. There are three large lecture halls and numerous classrooms and laboratories. The office of the Evening Division of the College of Liberal Arts is located on the first floor of this building.

### **East Building**

The East Building of the University is the educational wing of the Huntington Avenue Branch of the Boston Young Men's Christian Association. The library, classrooms, certain laboratories, and the gymnasium are located in this building.

### **South Building**

The South Building of the University contains certain laboratories, a large lecture hall, and several classrooms.

### **Law School Building**

The Law School Building, located at 47 Mt. Vernon Street, within sight of the State House, contains administrative offices, a library, classrooms, student lounges, and other facilities. It is utilized exclusively for Law School work.

## *Transportation*

The University center is easily reached from the various railroad stations and from all points on the Boston Elevated System. Ample parking space is available for the use of students coming by automobile.

# College of Liberal Arts

## EVENING DIVISION

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### OFFICERS OF ADMINISTRATION

FRANK PALMER SPEARE, M.H., LL.D.  
*President of the University*

CARL STEPHENS ELL, A.B., M.S., Ed.M., Sc.D.  
*Vice-President of the University*

EVERETT AVERY CHURCHILL, A.B., Ed.D.  
*Vice-President of the University*

GALEN DAVID LIGHT, A.B.  
*Secretary and Treasurer of the University*

WILFRED STANLEY LAKE, A.B., M.A., Ph.D.  
*Dean of Instruction*

EBEN OSWELL SMITH, S.B.  
*Director of the Evening Division*

### CHAIRMEN OF INSTRUCTIONAL DEPARTMENTS IN THE COLLEGE OF LIBERAL ARTS

CHARLES FREDERICK BARNASON, A.B., A.M., Ph.D.  
Professor of Modern Languages  
Res. 122 Downer Ave., Hingham

STANLEY GODDARD ESTES, A.B., M.A., Ph.D.  
Professor of Psychology  
Res. 60 Pinckney St., Boston

CHARLES WILLIAM HAVICE, A.B., M.A., S.T.B., Ph.D.  
Professor of Sociology  
Res. 502 School St., Belmont

WILFRED STANLEY LAKE, A.B., M.A., Ph.D.  
Professor of Economics  
Res. 69 Columbus St., Newton Highlands

HAROLD WESLEY MELVIN, A.B., M.A.  
Professor of English  
Res. 44 Houston Ave., Milton

STANLEY DEMETRIUS MIROYIANNIS, S.B., M.A.  
Assistant Professor of Biology  
Res. 8 Cumberland St., Boston

CARL FREDERICK MUCKENHOUP, A.B., S.B., Ph.D.  
Professor of Physics  
Res. 332 Winchester St., Newton Hlds.

EDWARD SNOW PARSONS, S.B., Ed.M.  
Professor of Physical Education  
Res. 19 Hardy Ave., Watertown



NORRIS WHITFIELD POTTER, JR., A.B., M.A.  
 Assistant Professor of History  
 Res. 108 Jersey St., Boston

JOSEPH SPEAR, A.B., M.A.  
 Professor of Mathematics  
 Res. 31 Matchett St., Brighton

ARTHUR ANDREW VERNON, S.B., M.S., Ph.D.  
 Professor of Chemistry  
 Res. 316 Huntington Ave., Boston

WILLIAM CROMBIE WHITE, S.B., Ed.M.  
 Associate Professor of Education  
 Res. 30 Summit Rd., Wellesley

### INSTRUCTORS

THOMAS AUSTIN BRIDGES, B.S., A.M., S.T.B.  
 Introduction to the Social Sciences  
 Introduction to Philosophy

DONALD FREDERICK BROWN, A.B., A.M.  
 History of Civilization

HARRY KEMELMAN, A.B., A.M.  
 English Composition

J. KEENE HORNER, B.A., M.B.A.  
 Public Speaking

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MYRA EDNA WHITE  
*Librarian*

MARY B. FOOR  
*Manager of the Bookstore*

---

ELIZABETH BRECHEN HUNT  
*Secretary to the Director*

## THE COLLEGE OF LIBERAL ARTS

### Evening Division

#### STATEMENT OF PURPOSE

The Evening Division of the College of Liberal Arts has limited its purpose to that of furnishing a general education and at the same time providing preparation for admission to the Northeastern University School of Law. By conducting its classes at convenient evening hours it gives those high school graduates who are obliged to seek work immediately upon graduation an opportunity to continue their education. In general, those who desire to further their education in the Evening Division of the College of Liberal Arts may be divided into two groups.

The first group is composed of those who wish to prepare for admission to the School of Law. The curriculum is basically composed of courses in the fields of English, History, Government and the Social Sciences. A knowledge of these fields furnishes an excellent background for the study of the law. In adopting the two year college requirement for admission to schools of law, a requirement now in effect in Massachusetts, the American Bar Association recognized the value of such a cultural education prior to the beginning of the study of law.

The second group is composed of those who wish to continue their education along cultural lines. The continued success of the democratic form of government depends upon an intelligent electorate. The courses of the curriculum provide a background of knowledge necessary to make sound judgment as to the value of proposed economic and governmental policies.

From the strictly vocational point of view the courses contain the basic principles underlying business in general. Furthermore, since government now is related to business in so many ways and even to some extent is entering the field of business, a study of government and its functions should be of considerable help to the business man.

Finally, the curriculum will broaden the field of a student's interest. Through this broadening an appreciation of many fields of knowledge will be obtained which will greatly enrich personal living.

#### REQUIREMENTS FOR GRADUATION

The courses in the Evening Division meet the same academic standards and include the same number of semester hours' credits as those offered in the day program of the College of Liberal Arts. The subjects, however, have been carefully chosen to meet the particular needs of evening students.

After the completion of the program of sixty-three semester hours the title of Associate in Arts is granted. The requirements for this title may be met by class attendance, three nights a week, forty weeks each year, for three years.

Any man who completes the requirements for the Associate in Arts Title may become a candidate for the Bachelor's degree in the College of Liberal Arts by completing an additional sixty-two semester hours of work and by meeting major, minor, and language requirements in the Day Division.

The Day Division is open to men only.

### ADMISSION REQUIREMENTS

Admission requirements are the same for the Day and Evening work in the College of Liberal Arts. However, both men and women are admitted to the Evening Division while the Day College of Liberal Arts is restricted to men only.

Applicants for admission must qualify by one of the following methods:

1. Graduation from an approved course of study in an accredited secondary school.
2. Completion of fifteen secondary school units with a degree of proficiency satisfactory to the Department of Admissions.
3. Examinations. (Certificate of entrance examinations passed for admission to recognized colleges and technical schools may be accepted.)

Regardless of the method used applicants for admission must present prescribed subjects in either Group A or Group B.

Group A		Group B	
English	3	English	3
Foreign Language (Ancient or Modern)	3	Mathematics	2 or 3
Social Sciences	2	Natural Sciences	1
*Electives	7	*Electives	8 or 9
	<hr/>		<hr/>
Total	15	Total	15

\*Not less than four of the "electives" must be in one or more of the following academic branches: Languages, Natural Sciences, Mathematics, Social Sciences, History.

### GENERAL INFORMATION

#### Advanced Standing

Students transferring from approved colleges will be admitted to advanced standing provided their records warrant it. Whenever a student enters with advanced standing and later proves to have inadequate preparation in any of his prerequisite subjects, the faculty reserves the right to require the student to make up such deficiencies.

**Application for Admission**

Each applicant for admission is required to file an application blank setting forth his previous education and the names of persons to whom references may be made in regard to his character and previous training.

The last page of this catalogue is in the form of an application blank. It should be filled out in ink and forwarded to the Director of the Evening Division of the College of Liberal Arts, Northeastern University, 360 Huntington Avenue, Boston, Massachusetts. Upon receipt of the application, the college at once obtains the secondary school records, checks the references, and when all the data have been assembled informs the applicant as to his eligibility for admission.

Applications should be filed preferably before the registration period, thus allowing time to determine eligibility for admission and to adjust any schedule problems before the opening night. Applicants are urged to visit the school for a personal interview if it is possible for them to do so.

Applicants seeking advanced standing should arrange to have transcripts of their previous college records forwarded with their application.

**Registration**

The filing of the application for admission does not constitute registration. All students are required to register at the college and arrange for the payment of their tuition during the registration period. (See calendar, p. 4).

**Attendance and Examinations**

Attendance is required of all students at recitations and lectures continuously throughout the academic year.

Regular final examinations are held at the close of each term.

Make-up examinations are held in September of each year. (See calendar, p. 4)

**Grades**

The work of each student shall be graded upon examinations, according to the following scale:

A	Superior	} Honor Grades
B	Above average	
C	Average	
D	Lowest passing grade	
E	Unsatisfactory*	
F	Failure**	
No examination	Inc. Incomplete	

\*An unsatisfactory grade may be made up by taking the make-up examination and obtaining a satisfactory grade.

\*\*A failure may be made up, but only by repeating the course in its entirety and obtaining a satisfactory grade.

**Honor List**

The Honor List, issued at the end of each term, contains the names of all students taking a full program who have an honor grade average in all subjects.

## TUITION AND FEES

### Application Fee

An application fee of \$5.00 is required when the application for admission is filed. This fee is not refundable.

### Tuition

Tuition is payable in advance in four installments on the following dates: \$40 at the opening of school in September, \$40 December 4, \$40 February 19, and \$40 at the beginning of the third term in May.

Students enrolled for less than a full-year program are charged on a semester hour basis of \$8.00 per semester hour.

Students who cannot pay on the above basis may make special arrangements with the Director by personal conference.

### Late Payment Fee

A \$2.00 late payment fee is added to all tuition bills which are not paid in full when due. Students who cannot meet their tuition payments should arrange with the Director before the due date for the late payment of their tuition.

### Examination Fees

A fee of \$2.00 is charged for each make-up examination taken by a student.

### Payments

Checks or money orders should be drawn payable to Northeastern University.

### Withdrawals and Refunds

In the event a student is obliged to withdraw from the school for causes deemed adequate by the committee on Administration, the unused tuition will be refunded.



## CURRICULUM

## First Year

<i>First Term (15 Weeks)</i>	<i>S. H.</i>	<i>Second Term (15 Weeks)</i>	<i>S. H.</i>
L 1-2 English Composition	3	L 1-2 English Composition	3
HS 1-2 History of Civilization	3	HS 1-2 History of Civilization	3
SS 3-4 Intro. Social Sciences	2	SS 3-4 Intro. Social Sciences	2
	—		—
	8		8
<i>Third Term (10 Weeks)</i>		<i>S. H.</i>	
L 3 Public Speaking		2	
SS 1 Introduction to Philosophy		3	
		—	
		5	

## Second Year

<i>First Term (15 Weeks)</i>	<i>S. H.</i>	<i>Second Term (15 Weeks)</i>	<i>S. H.</i>
HS 3-4 English and American Constitutional History	3	HS 3-4 English and American Constitutional History	3
SS 5-6 Principles of Economics	3	SS 5-6 Principles of Economics	3
L 5-6 English Literature	2	L 5-6 English Literature	2
	—		—
	8		8
<i>Third Term (10 Weeks)</i>		<i>S. H.</i>	
HS 3-4 English and American Constitutional History		2	
SS 7 Int. Economic Relations		3	
		—	
		5	

## Third Year\*

<i>First Term (15 Weeks)</i>	<i>S. H.</i>	<i>Second Term (15 Weeks)</i>	<i>S. H.</i>
SS 9-10 General Psychology	3	SS 9-10 General Psychology	3
SS 11-12 Principles of Sociology	3	SS 11-12 Principles of Sociology	3
SS 17-18 Am. Govt. and Politics	2	SS 17-18 Am. Govt. and Politics	2
	—		—
	8		8
<i>Third Term (10 Weeks)</i>		<i>S. H.</i>	
SS 15 Social Ethics		3	
SS 13 Criminology		2	
		—	
		5	

While a minimum of three years is required to complete the Evening Division curriculum, some students will prefer to spread their work over a longer period. The school year consists of two fifteen-week terms and a ten-week term. Classes are held each week from 6:30 P.M. to 9:30 P.M. on two evenings and from 7:00 P.M. to 9:00 P.M. on the third evening. In order to obtain the greatest value from the courses each student should be prepared to spend from twelve to fifteen hours a week in outside study.

This curriculum comprises sixty-three semester hours of academic work, which is equivalent in semester hours to one-half of the requirement for the Bachelor's degree in the College of Liberal Arts.

\*Offered 1940-41 and thereafter.

## REQUIREMENTS FOR THE A.B. OR S.B. DEGREE

A man who completes the curriculum in the Evening Division of the College of Liberal Arts may become a candidate for the Bachelor's degree in the Day Division of the College of Liberal Arts by completing an additional sixty-two semester hours of work and by meeting major, minor, and language requirements.

## DESCRIPTION OF COURSES

### L 1-2 English Composition

This is a course in the fundamental principles of composition, aiming to improve the student's ability to write effectively. Sentence structure, paragraph development, organization of material, and similar problems are taken up and the student is given much practice through required theme writing. Considerable reading in current periodical literature forms a part of the course. Some work in oral English is included.

First year, first and second terms

6 semester hour credits

### L 3 Public Speaking

This course offers practical training in the preparation and presentation of the various types of speeches. The instruction will be planned to eliminate defects of voice, posture, etc., and to develop in the student an ability to speak easily, naturally, and forcefully.

First year, third term

2 semester hour credits

### L 5-6 English Literature

A survey of English literature. After a brief study of the social and political background of each literary period, the writing of the period is considered, and the more important writers are studied and read in detail. The purpose of the course is to give the student an appreciation of English literature as a whole, and an intimate knowledge of its major figures.

Second year, first and second terms

4 semester hour credits

### HS 1-2 History of Civilization

A study of the effect of geographical environment, race, and inherited cultures upon human societies, and of the origin and development of institutions. Beginning with an outline of the origin of man, palaeolithic and neolithic men and cultures, the transition to copper and bronze cultures, the development of writing and various alphabets, the course proceeds to a consideration of the early civilizations of Asia and Egypt. Other topics considered are prehistoric Greece, the Minoan civilization of Crete, Lydia and the later civilizations of western Asia, and the conflict of east against west. The course culminates with a discussion of Athenian civilization, the clash of Athens and Sparta, the rise of imperialism and the spread of Hellenism, the rise of Rome, social and religious influences of the east upon Greek and Roman thought, and the spread of Christianity.

First year, first and second terms

6 semester hour credits

### HS 3-4 English and American Constitutional History

The first semester of this course is devoted to a consideration of the English constitution and of the common law; local government vs. central government; the origin and growth of Parliament; the development of the British cabinet system; and a comprehensive study of statutes and documents.

In the second term a study is made of the historical development of the United States Constitution with particular emphasis on its progressive adaptation to a changing social and economic order.

Second year, first, second, and third terms

8 semester hour credits

**SS 1 Introduction to Philosophy**

This introductory course combines the historical and systematic approaches to the subject. The historical treatment includes a survey of the chief philosophers and the development of basic philosophical ideas. The systematic treatment presents the several schools of philosophy, such as realism, materialism, idealism, and the like. The place of philosophy is considered in its relation to ethics, religion, and the social sciences. The course seeks not only to acquaint the student with facts about philosophy but to enable him to think philosophically.

First year, third term

3 semester hour credits

**SS 3-4 Introduction to the Social Sciences**

After some preliminary consideration of the European background of contemporary American culture this course undertakes a survey of the development of economic, social, and political institutions in the U. S. A. Particular attention is paid to the process of transformation by which changes occurred in order to provide a background for understanding the major social problems of the present day.

First year, first and second terms

4 semester hour credits

**SS 5-6 Principles of Economics**

A thorough grounding in the fundamental principles and laws of economics is the aim of this basic course. The main topics include: the nature of production, the nature and importance of wants, the relation of money and prices, the process of exchange, and the nature of international trade.

A careful analysis is made of the determination of price under conditions of competition and monopoly, and of the distribution of wealth and income in the form of wages, economic rent, interest and profits.

Second year, first and second terms

6 semester hour credits

**SS 7 International Economic Relations**

A careful examination of the important principles of international trade and finance precedes a critical survey of the international commercial policies of modern nations, with special reference to the United States. Such broader problems as the international control of raw materials, international cartels and the economic activities of the League of Nations are considered.

Second year, third term

3 semester hour credits

**SS 9-10 General Psychology\***

An elementary survey of the psychology of individual differences including personality differences, together with a presentation of some of the practical applications of the findings of differential psychology. This is followed by an introduction to general experimental psychology. The topics considered include learning, thought, memory, perception, and sensation.

Third year, first and second terms

6 semester hour credits

**SS 11-12 Principles of Sociology\***

Facts and principles basic to a general knowledge of the field of sociology are presented. The origins, forms, and forces of human associations are discussed. Consideration is given the several leading schools of sociological thought. The course is designed to meet the needs of the student who desires only an elementary survey of the subject, as well as the student who plans to take advanced courses in the field.

Third year, first and second terms

6 semester hour credits

\*Offered 1940-41 and thereafter.

**SS 13 Criminology\***

Who are criminals and what makes them such are the first questions which this course approaches. After a study of the nature and causes of crime, instruction is then given concerning the history, types, and theories of criminology. The classical and positive schools of the treatment of crime are compared with more modern points of view. Delinquency areas and crime zones are surveyed. What bearing mental disease and defectiveness, poverty, broken homes, and racial background have upon crime is examined; in fact, this course emphasizes at all times the fact that crime is not an isolated phenomenon but is closely related to many other social problems.

Third year, third term

2 semester hour credits

**SS 15 Principles of Social Ethics\***

This course deals with the nature of right and wrong conduct with reference to moral problems in individual and social life. The beginnings and growth of morality will be traced from the level of custom to the level of conscience and then to the level of reflective thought. The development of moral judgment and of ethical standards will be considered.

Third year, third term

3 semester hour credits

**SS 17-18 American Government and Politics\***

The study of our National Government with respect to its organization and function; its powers and limitations under the Constitution; its legislative, administrative and judicial machinery under the party system of government and bureaucracy.

In the second term a more careful study of the relationships of our federal, state and municipal governments, including an analysis and comparison of the various state governments and types of municipal government with respect to state and local agencies for carrying out the executive, legislative and judicial functions of government in a democratic country.

Third year, first and second terms

4 semester hour credits

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\*Offered 1940-41 and thereafter.

A fee of five dollars must accompany this application. Make checks, money orders, or drafts payable to Northeastern University. **This fee is not refundable.**

360 Huntington Avenue, Boston, Massachusetts

Date.....19.....

Mr.

Mrs.

..... (First) ..... (Middle) ..... (Last)

I wish to pursue this program for the purpose checked below.

- I do intend to continue in the Day Division to complete the requirements for the A.B. or S.B. degree if circumstances permit.

Mail Address: Street.....City.....State.....

Place of birth.....  
Date of birth..... Age..... yrs..... mos.....

Name and address of parent or guardian if under 21 years of age .....

I have attended the following schools above the eighth grade. (Include other schools of the Northeastern University System and if you have attended other universities designate the school.)

I request advanced standing credit and will furnish transcript for previous college work completed at.

Refer you to the following person who is not a student or relative:

Name.....  
Street.....

City.....State.....Occupation.....

I first learned of Northeastern University through.....

Following is the name and address of the person who recommended that I enter the University.....

..... Usual Signature

Approved for admission as a regular student with..... units credited.

.....Date  
.....Director





# NORTHEASTERN UNIVERSITY

## College of Liberal Arts

Offers a broad program of college subjects serving as a foundation for the understanding of modern culture, social relations, and technical achievement. Varied opportunities available for vocational specialization. Degree: Bachelor of Science or Bachelor of Arts.

## College of Engineering

Offers curricula in Civil, Mechanical (with Diesel, Air-Conditioning, and Aeronautical options), Electrical, Chemical, Industrial Engineering, and Engineering Administration. Class room study is supplemented by experiment and research in well-equipped laboratories. Degree: Bachelor of Science in the professional field of specialization.

## College of Business Administration

Offers three curricula: Accounting, Banking and Finance, and Business Management. Each curriculum represents in itself a broad survey of business technique, differing from the others chiefly in emphasis. Degree: Bachelor of Science in Business Administration.

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## School of Law

Offers day and evening undergraduate programs admitting those who present a minimum of two years of college work, each program leading to the degree of Bachelor of Laws. Also graduate program in the evening leading to the degree of Master of Laws. Co-educational.

## School of Business

Offers curricula through evening classes in Accounting, Management, Law and Business Management, and Engineering and Business leading to the degree of Bachelor of Business Administration in specified fields or the Bachelor of Commercial Science in Law and Business Management. Preparation for C. P. A. Examinations. Shorter programs may be arranged. Co-educational.

## Evening Division of the College of Liberal Arts

Offers a three-year evening program equivalent in hours to one-half of the requirement for the A.B. or S.B. degrees. Provides general education and preparation for admission to the School of Law. Associate in Arts title conferred. Co-educational.

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The Colleges of Liberal Arts, Engineering, and Business Administration offer day programs for men only and are conducted on the co-operative plan. After the freshman year students may alternate their periods of study with periods of work in the employ of business or industrial concerns at ten-week intervals. Under this plan they gain valuable experience and earn a large part of their college expenses.

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In addition to the above schools the University has affiliated with it and conducts: the Lincoln Technical Institute offering, through evening classes, courses of junior college grade in various fields of engineering leading to the title of Associate in Engineering; and the Lincoln Preparatory School, an evening school preparing for college entrance and offering other standard high school programs.

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For further information regarding any of the above schools, address

**NORTHEASTERN UNIVERSITY**

360 Huntington Avenue, Boston, Massachusetts

Telephone: KENmore 5800



# *Lincoln Technical Institute*

**College Courses in Engineering**

1939



1940

**EVENING SESSIONS**

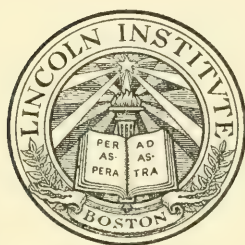




# LINCOLN TECHNICAL INSTITUTE

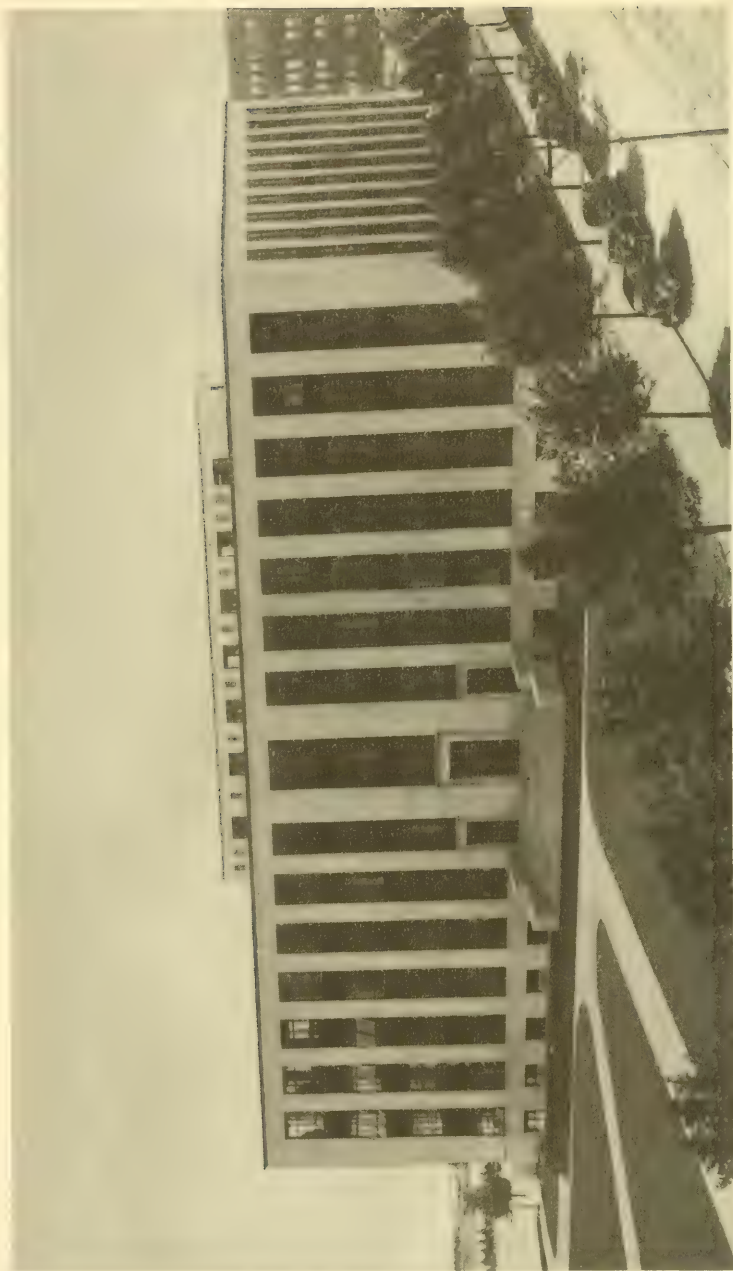
*(Affiliated with Northeastern University)*

## Evening Engineering Courses of College Grade



1939-1940

The Lincoln Technical Institute offers courses in Engineering leading to the title of Associate in Engineering and in conjunction with Northeastern University School of Business, offers courses carrying credit towards the Degree of Bachelor of Business Administration in Engineering and Management awarded by Northeastern University.



NORTHEASTERN UNIVERSITY — WEST BUILDING

# Lincoln Technical Institute

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*Dean*

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*Assistant to the Dean*

## CALENDAR

	1939
Registration Period	SEPTEMBER 5-18
Advanced Standing and Condition Examinations	SEPTEMBER 8
Classes Begin	SEPTEMBER 18
Legal Holiday. No Classes	OCTOBER 12
Thanksgiving Recess. No Classes	NOVEMBER 22-23
Final Class Session before Christmas Recess	DECEMBER 22

	1940
First Class Session after Christmas Recess	JANUARY 2
Division B Classes Begin	JANUARY 22
Legal Holiday. No Classes	FEBRUARY 22
Legal Holiday. No Classes	APRIL 19
Legal Holiday. No Classes	MAY 30
Commencement	JUNE 14

## OFFICE HOURS

AUGUST 14, 1939 — JUNE 15, 1940

Week days, except Saturday.....	9 a.m. till 9 p.m.
Saturday.....	9 a.m. till 1 p.m.

JUNE 18, 1940 — AUGUST 19, 1940

Monday, Wednesday, and Thursday.....	9 a.m. till 4 p.m.
Tuesday and Friday.....	{ 9 a.m. till 4 p.m.
	{ 6 p.m. till 8 p.m.
Saturday.....	9 a.m. till 12 m.

## INTERVIEWS

Prospective students, or those desiring advice or guidance with regard to any part of the school work or curricula, are offered personal interviews with the Dean or his assistants. No enquirer should hesitate to ask for an appointment as, in the long run, time is saved during the school year by having the whole educational problem discussed before the opening of the school.

## Faculty

WILLIAM THURLOW ALEXANDER

Appointed 1927

B.M.E. Northeastern University, 1926; B.S. Northeastern University, 1931; M.A. Boston University, 1935; Member of American Society of Mechanical Engineers; Member of Society for Promotion of Engineering Education; Assistant Professor, Industrial Engineering, Northeastern University, 1926—.

*Engineering Laboratory*

FREDERIC S. BACON, JR.

Appointed 1936

B.S. Northeastern University, 1936; Laboratory Assistant, Northeastern University, 1935-36; Radio Tube Engineer, Hytron Corporation, Salem, 1936-37; Graduate Student Course, Westinghouse Electric and Manufacturing Company, East Pittsburgh, Pa., 1937-38; Sales Engineer, Central Station Division, Westinghouse Electric and Manufacturing Company, Boston, 1938—.

*Electricity I, II, III*

CHARLES O. BAIRD, JR.

Appointed 1936

B.S. Northeastern University, 1934; Instructor, Northeastern Polytechnic School, 1922-1931; Instructor and Assistant Professor, Civil Engineering, Northeastern University, 1922—.

*Surveying*

WALTER ALFRED BALDWIN

Appointed 1931

A.B. Ohio Wesleyan University, 1906; Graduate Study, University of Chicago and Harvard University; Head, Department of Mathematics, Chillicothe High School, Ohio, 1906-8; Head, Department of Mathematics, Mansfield High School, Ohio, 1908-10; Head, Science Department, Huntington School for Boys, Boston, 1912-14; Instructor in Physics and Chemistry, Lincoln Preparatory School, 1910—. Investigator and Consultant.

*Chemistry*

ALLEN DOUGLASS BLISS

Appointed 1937

A.B. Middlebury College, 1923; A.M., Ph.D., Harvard University, 1928, 1934; Assistant Editor of the Journal of the American Chemical Society, 1927—; Instructor in Chemistry, Northeastern University, 1935-37; Research Assistant in Chemistry, Harvard University, 1932—.

*Analytical Chemistry*

CHARLES THEODORE BRADLEY

Appointed 1938

S.B. Massachusetts Institute of Technology, 1933; Assistant Instructor, Civil Engineering, Massachusetts Institute of Technology, 1938—.

*Engineering Mathematics*

HENRY BRASK

Appointed 1928

B.C.E. Northeastern University, 1923; Member of The Boston Society of Civil Engineers; with Aspinwall & Lincoln, Civil Engineers, 1920-1922; Boston & Albany R.R., 1922-1923; Engineer with Burtis Brown, Engineers, 1923-1934; Engineer with George P. Carver Engineering Co., 1934—.

*Structural Drawing and Design*



CURTIS C. BROOKS

Appointed 1937

B.M.E. Northeastern University, 1924; A.M. Boston University, 1939; Instructor, Chester High School, Vermont, 1925-26; Instructor, Wayland High School, New York, 1926-27; Instructor, Hanover High School, 1927-29; Instructor, Framingham High School 1929—.

*Engineering Mathematics*

BERTRAM M. BROWN

Appointed 1938

B.S. Rhode Island State College, 1936; M.S. Rhode Island State College, 1938; Instructor in Chemistry, Northeastern University, 1938—.

*Organic Chemistry Laboratory*

LAURENCE FULLER CLEVELAND

Appointed 1931

B.S. Worcester Polytechnic Institute, 1929; M.S. Massachusetts Institute of Technology, 1935; Member of the Society for the Promotion of Engineering Education; Assistant Professor in the Department of Electrical Engineering, Northeastern University, 1929—.

*Engineering Drawing*

OTIS F. CUSHMAN

Appointed 1937

B.S. University of New Hampshire, 1932; M.S. University of New Hampshire, 1934; Research Assistant, University of New Hampshire, 1935-36; Instructor in Drawing, Northeastern University, 1936—.

*Engineering Drawing*

ALEXANDER BARRETT DAYTZ

Appointed 1931

B.S. Massachusetts Institute of Technology, 1928; Phoenix Bridge Co., 1928-1929; Bridge Designer, Boston and Maine Railroad Company, 1929-30; Assistant Structural Engineer, Boston Transit Department, 1930-32; Assistant at Massachusetts Institute of Technology, 1932; Massachusetts Metropolitan District Water Supply Commission, 1933-35; Engineer for Metropolitan Sewerage Division, 1936; Practicing Engineer, 1936—.

*Structures, Concrete, Concrete Design*

HARRY EVERETT DOW

Appointed 1928

Calculating Engineer, New London Ship and Engine Company; Technical Assistant, Boston Edison Company; Engineer Officer, First Battalion United States Naval Reserve, Boston; Engineer in the Malden & Melrose Gas Light Company.

*Blueprint Reading and Estimating*

ELMER HASKELL EVERETT

Appointed 1935

B.S. Northeastern University, 1934; Graduate Study, Massachusetts Institute of Technology, 1935; M.S. Harvard, 1936; Refrigeration Engineer, Boston Ice Company, 1933-35; Compressor Department, Ingersoll-Rand Company, 1936; Turbine Department, General Electric Company, 1936; Assistant to Research Engineer, Birdseye Laboratories, 1937—.

*Mathematics and Machine Drawing*

WALTER S. FROST

Appointed 1937

B.S. Tufts College, 1912; Ph.D. Cornell University, 1923; Instructor, Cornell University, 1916-1919; Instructor, West Virginia University, 1920; Assistant Professor, University of New Hampshire, 1920-26; Chemist, Burnham Soluble Iodine Company, 1929—.

*Industrial Chemistry      Organic Chemistry*

ROYAL MERRILL FRYE

Appointed 1930

A.B. Boston University, 1911; A.M. Boston University, 1912; Ph.D. Boston University, 1934; Instructor in Boston University, 1913-16; Instructor in Department of Physics, Massachusetts Institute of Technology, 1916-31; Instructor in Physics, Worcester Polytechnic Institute, 1926-27; Assistant Professor of Physics, Boston University Graduate School, 1931—.

*Practical Physics, Advanced Mathematics*

MARIO GIELLA

Appointed 1938

B.S. Northeastern University, 1937; Assistant in Chemistry, Northeastern University, 1938—.

*Analytical Chemistry Laboratory*

ROBERT H. HANSEN

Appointed 1938

B.S. Massachusetts Institute of Technology, 1932; Graduate study, Harvard University, 1938; K. J. Quinn and Company, 1932-36; Dixieland Food Company; Kolb Chemical Company, 1937; A. D. Little and Company, 1937-38; Graduate assistant, Northeastern University, 1938—.

ROBERT EDGAR HODGDON

Appointed 1927

B.S. University of New Hampshire; M.S. Massachusetts Institute of Technology; Teacher in Mechanical Arts Department, Dover High School, New Hampshire, 1919-20; Teacher of Physics and Mathematics, Concord High School, New Hampshire, 1920-21; Training Assistant United States Veterans Bureau, 1921-22; Instructor in Physics Department of Massachusetts Institute of Technology, 1922-33; Rindge Technical School, 1933—.

*Engineering Drawing, Practical Physics, Advanced Mathematics, Electricity*

C. DAVID JOHNSON

Appointed 1938

A.B. Clark University, 1915; M.A. Boston University, 1935; Instructor in Physical Training, Clark College, 1912-16; Instructor in Physics, Clark University, 1915-19; Instructor in Physics, Worcester Polytechnic Institute, 1919-20; Instructor in Physics and Acting Head of Department, Simmons College, 1920-21; Instructor in Physics, Tufts College, 1922-29; Assistant Professor of Physics, Northeastern University, 1929—.

*Physics*

LEON KEACH

Appointed 1938

S.B. Massachusetts Institute of Technology, 1917; Office of Guy Lowell, 1922-1929; Office of J. Williams Beal Sons, 1929—.

*Architectural Drawing and Design*

HERBERT G. LANG

Appointed 1936

B.S. Northeastern University, 1934; Draftsman, Mason-Neilan Regulator Company, 1934—.

*Engineering Drawing*

JOHN ROBERT LEIGHTON

Appointed 1915

B.C.E. Northeastern University, 1914; Instructor, Northeastern University, 1914-17; Instructor, Northeastern Polytechnic School, 1915-27; Instructor, Lincoln Technical Institute, 1927—.

*Applied Mechanics, Strength of Materials*

JAMES EARL MACAULAY

Appointed 1934

B.C.E. Northeastern University, 1925; Draftsman and Surveyor, Engineering Department, Town of Brookline; Assistant Manager, Marine Department, Aberthaw Company, Boston; in charge of Maintenance Department, Cape Cod Canal, United States Government, 1935-38.

*Engineering Mathematics*

ROBERT E. MADSEN

Appointed 1933

B.M.E. Northeastern University, 1931; B.S. Northeastern University, 1933; Instructor, Northeastern University, 1931-34; Instructor, Pond Street High School, Ayer, 1934-35; Maynard High School, 1935-36; Bedford Junior High School, 1936—.

*Engineering Mathematics    Engineering Drawing*

HERBERT C. MAYER

Appointed 1932

B.A. Oberlin College, 1915; M.A. Boston University, 1922; United States Army Air Service, 1917-19; Professor of Secondary Education, Boston University, 1920-29; Education director Curtiss-Wright Flying Service, 1929-30; President, Aeronautical Service, Incorporated, 1930-35; President, Avite Products, Incorporated, 1932-37; Research, Harvard University, 1937—.

*The Airplane and its Engine    Meteorology*

WALDEMAR STANWOOD MCGUIRE

Appointed 1936

S.B. Massachusetts Institute of Technology, 1928; M.A. Boston University, 1930; Instructor at Tufts College, 1920-21; Instructor Rhode Island State College, 1921-24; Northeastern University, Professor of Chemistry, 1924—.

*Analytical Chemistry*

GEORGE AXEL PETERSON

Appointed 1936

B.S. Massachusetts Institute of Technology, 1935; Design Engineer, General Heat & Appliance Company, 1935—.

*Heating and Air Conditioning*

GEORGE EVERETT PIHL

Appointed 1938

B.S. Northeastern University, 1937; Graduate Assistant in Electrical Laboratory, Northeastern University, 1938—.

*Electrical Laboratory*

CHARLES EDWARD RICE

Appointed 1936

B.S. Northeastern University, 1935; Laboratory Assistant, Northeastern University, 1932-35; General Radio Company, 1935—.

*Electrical Laboratory*

ALBERT E. SANDERSON, JR.

Appointed 1936

B.C.E. Northeastern University, 1926; Bethlehem Steel Company, 1927-30; Boston Bridge Works, 1930-34.

*Engineering Drawing    Physics*

JOHN DAVID SHORE

Appointed 1926

Lieut. U. S. N. R.; S.B. Massachusetts Institute of Technology, 1912; Architectural Draftsman, 1916-21; Instructor, Franklin Union, Boston, 1921-24; Head of Department of Mechanical Drawing, United States Vocational School, Portland, Maine, 1924-25; Instructor in Mathematics, English High School, 1925—; University Extension Work: Industrial Mathematics and Blue Print Reading, Navy Yard, Boston, and Industrial Mathematics and Slide Rule, Massachusetts Institute of Technology, Cambridge, 1937-1938.

*Engineering Mathematics*

FREDERICK ARLINGTON STEARNS

Appointed 1921

B.S. 1917, M.S. 1934, Massachusetts Institute of Technology; Member of American Society of Mechanical Engineers; Member of Society for Promotion of Engineering Education; United States Army, 1917-19; Instructor, Massachusetts Institute of Technology, 1920; Professor in the Department of Mechanical Engineering, Northeastern University, 1920—.

*Heat Engineering*

ALBERT E. WHITTAKER

Appointed 1936

B.M.E. Northeastern University, 1924; Ed.M. Harvard University, 1932; B.S. Northeastern University, 1933; Graduate Study, Boston University, 1934—; Assistant Professor, Mathematics, Northeastern University, 1924—.

*Engineering Mathematics*

CHESTER HENRY WOLOWICZ

Appointed 1938

B.S. Northeastern University, 1937; Instructor in the Department of Mechanical Engineering, Northeastern University, 1938—.

*Machine Design*

SAVERIO ZUFFANTI

Appointed 1934

B.Ch.E. Northeastern University, 1930; M.A. Boston University, 1932; B.S. Northeastern University, 1934; Assistant Professor of Chemistry, Northeastern University, 1930—.

*Analytical Chemistry*

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EDNA M. EDISON, *Secretary*

HELEN E. HILDRETH, *Bookkeeper*

HAWTHORNE P. SUMMERS, *Recorder*



ONE OF THE CLASSROOMS



MECHANICAL ENGINEERING LABORATORY



## *The Lincoln Schools*

THE Lincoln Schools, conducted by and affiliated with Northeastern University, include the Lincoln Technical Institute and the Lincoln Preparatory School. These schools offer the non-degree-granting work conducted by Northeastern University. In the Lincoln Technical Institute the work, however, carries credit towards the Title of Associate in Engineering and is acceptable also towards the degree of B.B.A. in Engineering and Management offered by Northeastern University School of Business.

All classes in the Lincoln Schools are held in the evening and are especially designed to meet the needs of those who are employed during the day.

The first of the Lincoln Schools to be established was the Lincoln Preparatory School, known for many years as the Northeastern Preparatory School. This school had its real beginning in 1897 in the single courses offered in History, Science, and other subjects of a cultural nature, and in certain trade courses intended to benefit men engaged in various occupations.

Gradually the trade courses were discontinued and the remaining subjects were welded into a regular high school program, upon the completion of which a standard high school diploma was awarded.

The primary purpose of the school has been effective preparation of students for college entrance. For this reason constant attention has been paid through the years to the maintenance and improvement of standards.

In 1925 women were admitted to classes on the same basis as men. Since 1924 the school has been accredited by the New England College Entrance Certificate Board, a marked distinction in the case of an evening school, and an expression of confidence that day school standards are maintained. The school today offers curricula in the general, scientific, and classical fields. The enrollment has increased from fewer than fifty students to almost five hundred, of whom one-fifth are women. The faculty has been increased until it now numbers from twenty-five to thirty men of wide experience and training, drawn from the leading day preparatory and high schools of Metropolitan Boston.

Next in point of view of time was the Lincoln Technical Institute, which had its origin in the Evening Polytechnic School. The latter received its title in 1901, when the work of various technical departments, such as the Department of Steam Engineering, the Department of Art, the Automotive School and the Department of Naval Architecture, were grouped together into curricula. By 1904 we find the school offering definite curricula, generally of three years' duration, in Architecture, Chemistry, Marine Engineering, Structural Engineering, Steam Engineering, along with

courses in Art, Navigation, Surveying, Seamanship, and other related fields. In 1925 the title Lincoln Institute was given to the Northeastern Evening Polytechnic School. At this time the Lincoln Institute remodelled, lengthened, and consequently improved the former courses, offering four year curricula in Architecture, Chemistry, Civil Engineering, Electrical Engineering, Mechanical Engineering and Structural Engineering.

Since then, additional curricula have been added, namely, Aeronautical Engineering, and Air Conditioning Engineering.

In addition, provision was made so that students need not pursue a complete curriculum but could elect individual courses related to their present occupations, the only prerequisite of entry being ability to pursue the course with profit to themselves. At the present time there are five hundred students receiving instruction in the Lincoln Technical Institute in the various branches of engineering.

Since 1936 the curricular courses of the Institute have been credited by Northeastern University School of Business towards the Degree of Bachelor of Business Administration in Engineering and Management offered by that school.

Effective 1939 the Executive Council of Northeastern University authorized the Lincoln Technical Institute to award the Title of Associate in Engineering to those who satisfactorily complete any one of the prescribed curricula.

The Officers of Administration are constantly alert to changing conditions and from time to time will modify existing courses to meet new needs and develop new courses so that real educational opportunities will be available to employed men and women at convenient evening hours. In particular they are sincerely interested in the problems of each student and are available for vocational and educational guidance. Through the Lincoln Schools many men and women have been able to solve their problems and to secure that education which has enabled them to succeed in the work for which they are adapted by ability and interest. Without the facilities of the Lincoln Schools many of these alumni would still be occupying minor positions with little opportunity for advancement on account of lack of training.

# The Lincoln Technical Institute

## *Engineering Training in the Lincoln Technical Institute*

THE LINCOLN TECHNICAL INSTITUTE is an evening engineering school in Boston, offering to the residents of Metropolitan Boston the opportunity for evening engineering studies and meeting the rigid requirements expected of a good school of engineering.

The Lincoln Technical Institute, while not claiming to offer a training equivalent to that offered by a day school of engineering or professing to turn out finished engineers, nevertheless offers an engineering training which is of marked value and which has the following outstanding features:

1. It aims to supply an increasing number of men who have been thoroughly trained in the fundamental theories of mathematics and the physical sciences, who can apply their knowledge to the independent solution of practical problems and to their everyday work, making intelligent use of their textbooks, manuals, and available literature.
2. The courses are conducted by experienced instructors, all of whom have had practical contact with the engineering profession.
3. Considerable stress is laid on the practical aspects of each course, and, where possible, practice is combined with theory. This procedure is simplified because of the practical training and experience of most of our faculty members.
4. All courses meet at convenient evening hours, usually three evenings a week for a full program, so that students may pursue this training without leaving their present occupations and yet have adequate time for outside study.
5. The fees charged are extremely moderate, and, being payable in installments, are within the reach of most ambitious men.
6. The student body is a well-prepared, experienced, and mature group of men of widely varying ages and occupations.
7. *Satisfactory completion of any of the prescribed programs leads to the award of the Title of Associate in Engineering.*
8. *Degree credit is given in the Northeastern University Evening School of Business for work completed in the Lincoln Technical Institute.*

The recent depression has shown that the greatest single need that most of us have is security of employment. Without this security, satisfactory living is difficult, if not impossible. We have learned, furthermore, that this security may best be obtained by providing ourselves with such adequate training that we not only continue to be of service to our employer but that if possible we continue to make ourselves of increasing value. It is to be further secured by qualifying for some other occupation than the one in which we are at present employed. Those who suffered most in the recent depression were those whose specialization was so narrow that they could not adapt themselves to other related phases of their occupation, or those whose education was so general that it lacked depth. A sound engineering course such as that offered by the Lincoln Technical Institute in the evening will furnish a man with an opportunity, not only to obtain the specialization he needs, but furnishes him with a general training in engineering so that in the event of loss of employment through some economic catastrophe he may make a vocational readjustment with a minimum of lost motion.

### *Opportunities for the Technically-Trained man*

Since Engineering embraces almost the whole range of human activities, the ultimate position of the man who trains himself to enter the engineering field will depend in large measures on the opportunities in his particular field of study and on his own ability and training. However, the range of work within any given engineering field is so great that the average student, applying himself diligently to his chosen program of study, should find first, employment; second, an opportunity to advance in keeping with his ability and training. Below are listed some of the more specific jobs in the various fields of Engineering. These give the various areas in which a man may work and the promotional steps he may take.

*The Construction Field:* This field embraces *Architecture, Civil Engineering and Structural Engineering*. The following are some of the positions in this field: construction supervisor, job superintendent, draftsman, estimator, designer, surveyor, general superintendent, contractor, field engineer, etc.

*The Electrical Field:* The following are some of the positions in this field: operator, maintenance man, installator and service man, tester, inspector, draftsman and designer, research worker, plant engineer, lighting engineer, estimator, production man.

*The Chemical Field:* Listed below are some of the positions available in the Chemical field: laboratory assistant, technician, assistant chemist, chemist, production assistant, department supervisor, laboratory supervisor, research worker.



*The Mechanical Field:* This field embraces also the areas of *Air Conditioning Engineering*, *Diesel Engineering* and *Aeronautical Engineering*. Some of the positions in this field are: draftsman, tool designer, checker, inspector, chief of maintenance, production engineer, machine designer, power plant test engineer, supervisor, experimental department worker.

*The Field of Management:* These technical areas have, of course, many related positions which are necessary to permit the smooth functioning of any business enterprise, large or small, and frequently many of the higher salaries in the engineering field are paid to men who are in what is generally referred to as the business side of engineering. The following are some of the positions available here: bookkeeper, office manager, accountant, specifications writer, purchasing agent, salesman, public relations agent, employment manager, plant manager, etc.

### *Industry Demands Trained Men*

The remarkable engineering developments of recent years, while conferring many benefits on the human race, have created personnel problems in industry that have demanded the attention of the best brains in the country. The decline of the apprenticeship system and the increased use of machines for processes formerly performed by hand have brought about a system so complicated that a young man entering industry cannot hope to achieve success without some form of specialized training. Even the man already employed in industry in an unskilled or semi-skilled capacity must seriously consider such training if he hopes for advancement.

### *Opportunities for the Engineer in Metropolitan Boston*

The following brief statements regarding Metropolitan Boston and its industries and activities show at a glance the opportunities available to the engineer, and demonstrate that with the continued growth of this area in population, importance, and activity, a large force of men, well trained in engineering experience, are needed for the maintenance and for the development of new and greater projects:

Boston is the business, industrial, and population center of New England; and New England is one of the richest industrial regions in the world.

It has an area of 457 square miles, and a population of 2,000,000, increasing at the rate of approximately 27,000 a year.

The steam and electrical mileage of Metropolitan Boston is greater than that of any similar area in the Western hemisphere.



Boston has over 52,000 manufacturing plants, with more than a billion dollars invested in these manufacturing establishments.

It has more than 25,000 well-ordered mercantile establishments.

It is the shoe and leather center of the world.

It is the center of the country's paper trade.

It is the greatest wool center in the world.

It is the most important cotton-manufacturing district in the Western hemisphere.

It is one of the three great rubber manufacturing centers of the United States.

High quality electrical apparatus is Boston's third greatest industrial output.

It is a great seaport, and has the most advantageously located airport in the United States.

It has a central planning agency, the division of Metropolitan planning, which deals with all highway, rail, and transportation problems for 43 cities and towns.

### *Faculty*

In an evening school it is particularly essential that none but men of wide experience and high ideals be appointed to the faculty. Accordingly, the faculty of the Lincoln Technical Institute has been very carefully chosen, all its members being graduates of the leading colleges and universities. They are men of culture and high ideals who are in sympathy with evening school students and understand their aims. They have had excellent training and wide experience in the subjects which they teach. Most of them have served with the institution for many years, and take a personal interest in its aims and its success. The average length of the service of faculty members is more than nine years. The average length of their teaching experience is eleven years. All of them are at present employed as instructors in colleges and universities in the vicinity of Boston, or are men prominent in executive positions in the industrial and commercial world or in the professional practice of engineering.

### *Student Body*

The students of the Lincoln Technical Institute are men of earnest purpose and firm endeavor who bring to bear on their work a thoroughness which promises future success. Their ages last year ranged from 16 to 48, indicating that at almost all ages educational opportunities may be used for material advantage and

to increase personal satisfaction in daily labor. Almost all the students are engaged in work during the day and many different occupations have their representatives in the student body, a fact which demonstrates that the school can be of service to men in many walks of life. A list of the various occupations of some of the students attending last year is given below and will prove interesting.

### *Occupational Survey*

The following are some of the occupations represented in the student body during the school year 1938-39:

Accountants	Glass Grinders	Printers
Advertising Men	Inspectors	Purchasing Agents
Attendants	Investigators	Railroad Workers
Bakers	Janitors	Real Estate Agents
Barbers	Laboratory Assistants	Riveters
Blue Printers	Laborers	Rodmen
Bookkeepers	Landscape Gardeners	Sales Managers
Bricklayers	Leather Workers	Salesmen
Butchers	Librarians	Shippers
Carpenters	Linesmen	Shoe Workers
Cashiers	Lithographers	Statisticians
Chemists	Machinists	Stenographers
Clerks	Managers	Stock Boys
Contractors	Masons	Students
Cooks	Mechanics	Superintendents
Decorators	Messengers	Surveyors
Draftsmen	Metal Workers	Technicians
Electricians	Meter Readers	Teletype Operators
Engineers	Millhands	Timekeepers
Engineers' Assistants	Newsdealers	Tool Makers
Experimenters	Office Workers	Truckmen
Factory Workers	Painters	Ushers
Farmers	Patent Attorneys	Vulcanizers
Foremen	Personnel Managers	Waiters
Furriers	Plumbers' Helpers	Watchmakers
Gas-Station Attendants	Porters	Welders

### *Geographical Distribution of Students*

During the school year 1938-39 the following cities and towns were represented in the student body of the Lincoln Technical Institute:

Allston	Brighton	East Boston
Amesbury	Brockton	East Braintree
Arlington	Brookline	East Dedham
Ashland	Brookville	East Milton
Attleboro	Cambridge	East Natick
Beachmont	Canton	East Taunton
Bellingham	Charlestown	East Walpole
Belmont	Chelsea	Everett
Billerica	Concord	Fitchburg
Boston	Dedham	Foxboro
Braintree	Dorchester	Framingham

Gloucester	Needham	Somerville
Haverhill	New Bedford	South Boston
Hingham	Newton	South Braintree
Hyde Park	Newton Highlands	South Weymouth
Ipswich	North Attleboro	Stoneham
Jamaica Plain	North Weymouth	Stoughton
Lawrence	Norwood	Taunton
Lexington	Peabody	Wakefield
Lowell	Plymouth	Walpole
Lynn	Quincy	Waltham
Malden	Randolph	Watertown
Manchester	Reading	Wayland
Marblehead	Readville	Wellesley
Marlboro	Revere	West Peabody
Mattapan	Roslindale	West Roxbury
Medfield	Roxbury	Weymouth
Melrose	Salem	Whitman
Milton	Salem, N. H.	Winchester
Nashua, N. H.	Salem Depot, N. H.	Woburn
Natick	Saugus	Wollaston

### *High Schools Represented*

During the year 1938-39 the following high schools were represented in the student body:

Arlington High School	Gloucester High School
Arsenal Technical School, Ind.	Goddard Seminary, Vt.
Ashland High School	Greenfield High School
Attleboro High School	Hartford High School, Vt.
Barnstable High School	Haverhill High School
Belmont High School	Holbrook High School
Bethel High School, Conn.	Houlton High School, Me.
Beverly High School	Howe High School
Beverly Trade School	Huntington School for Boys
Boston Public Latin School	Hyde Park High School
Boston Trade School	Ipswich High School
Brewster Free Academy	Ithaca High School
Brighton High School	Jamaica Plain High School
Brighton Evening High School	Johnson High School
Brockton High School	Key Port High School, N. H.
Brookline High School	Lawrence High School
Browne and Nichols School	Lewiston High School
Cambridge School, Kendall Green	Lexington High School
Canton High School	Lincoln High School, Ohio
Cathedral High School	Lincoln Preparatory School
Central Evening High School	Lynn Classical High School
Chelsea High School	Lynn English High School
Clinton Coll. Institute	Malden Catholic High School
Commerce (High School of)	Malden High School
Concord High School	Manchester High School, N. H.
Dedham High School	Marblehead High School
Dorchester High for Boys	Marlboro High School
East Boston High School	Mechanic Arts High School
English High School	Medfield High School
Everett High School	Medford High School
Everett Trade School	Melrose High School
Foxboro High School	Merrimac High School
Framingham High School	Milton High School
Franklin High School	Mission Church High School

Needham High School	Stetson High School
New Bedford High School	St. James High School
New Hampton School for Boys, N.H.	St. Johnsbury Academy, Vt.
Newton High School	St. Joseph's High School
Noble & Greenough School	St. Mary's High School
North Quincy High School	Stoneham High School
Norwood High School	Story High School
Parsonsfield Seminary, Me.	Stoughton High School
Passaic High School, N. J.	Taunton High School
Peabody High School	Von Steuben High School, Ill.
Plymouth High School	Wakefield High School
Portland High School	Walpole High School
Provincetown High School	Waltham High School
Punchard High School	Wayland High School
Quincy High School	Wellesley High School
Reading High School	West Kent High School
Revere High School	Weymouth High School
Rindge Technical School	Whitman High School
Roxbury Evening High School	Winchester High School
Roxbury Memorial High School	Winthrop High School
Sacred Heart High School	Woburn High School
Salem High School	Woodbury High School
Saugus High School	Woodrow Wilson High School, Cal.
Somerville High School	Worcester Trade School
South Boston High School	

### *Location of School*

The work is conducted in three buildings of Northeastern University situated on a six and one half acre campus on Huntington Avenue just beyond Massachusetts Avenue opposite the Boston Opera House.

The West Building contains the headquarters of the school. This building has a hundred thousand square feet of space and is adequately equipped with classroom and laboratory facilities.

The East Building of the University is the educational wing of the Huntington Avenue Branch of the Y. M. C. A. It contains the library, classrooms, and the Chemical laboratories.

The South Building is situated in rear of the East Building and contains classrooms, and the Electrical and Biological laboratories.

The School is easily reached from the North and South Stations, from the various points of the Boston Elevated System, and by automobile. Ample parking facilities are available in the rear of the East Building and in the area adjacent to the West Building.

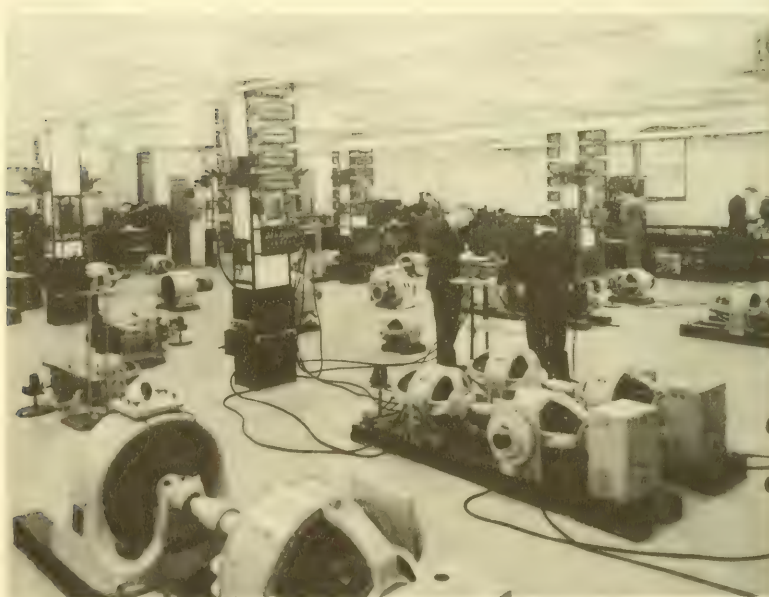
### *Railroad Tickets*

The railroad systems entering Boston issue students' tickets to students under twenty-one years of age. Applications for these may be obtained at a railroad office and presented at the school office for signature.





BIOLOGY LABORATORY



A SECTION OF THE ELECTRICAL LABORATORY



### *Library*

A large and well equipped library is available for the use of students. The reading rooms are open from 9 a.m. to 10.30 p.m. on week days, and from 9 a.m. to 10 p.m. on Saturdays. Students have also the privilege of securing books from the Boston Public Library and its branches. To obtain this privilege application should be made to the Librarian, who will furnish the applicant with the necessary blanks.

### *Text Books and Supplies*

The Lincoln Technical Institute enjoys the facilities of the Northeastern University Bookstore which is a department of the University and is operated for the convenience of the student body. All books and supplies which are required by the students for their work in the Institute may be purchased at the Bookstore. In addition, the Bookstore also carries a large number of general supplies. It should be pointed out that students attending Freshman Drawing should be prepared to expend a sum of approximately \$5.00 for drawing supplies, exclusive of the cost of a satisfactory set of drawing instruments.

### *Visitors*

Visitors are always welcome at one class session in any department. Those who wish to visit any of the classes should call at the school office and obtain a visitor's card signed by the Dean.

### *Notify the Office Immediately*

- (a) Of any change of address;
- (b) Of withdrawal from any course — otherwise the fee for that course will be charged;
- (c) Of withdrawal from the school — giving the date of the last lecture attended.

### *Interviews and Educational Guidance*

Prospective students or those desiring advice or guidance with regard to any part of the school work or curricula, or who wish assistance in the solution of their educational problems, should note the fact that interviews are available without obligation, and that the officers of the school will do their utmost to see that a program is designed which is the most satisfactory for the individ-

ual student. In certain cases, other institutions may be recommended which suit the student's needs better. Furthermore it is important that those with educational problems to solve should realize the necessity for care in approaching educational work so that the program selected will be on the best educational basis.

### *Scholarships*

The Executive Council has made available a few scholarships to assist needy students of good mental capacity who because of financial limitations might be deprived of educational opportunities. These scholarships when awarded usually meet one-half of a student's tuition charges for the year.

### *Awards for Scholastic Achievements*

For the school year, 1939-1940, the Executive Council has offered the following scholarships to the highest ranking Freshman, Sophomore and Junior who returns for the following school year a scholarship of \$50. To the second highest ranking Freshman, Sophomore and Junior who returns for the following school year a scholarship of \$25.

These scholarships will be awarded only to students pursuing a full program.

The winners of these scholarships for the past school year were:

<i>Freshmen</i>	William O. Hewett	Harry Sawizky
<i>Sophomores</i>	Morris Katzman	George F. Edwards
<i>Juniors</i>	John F. Leonard	Lloyd C. Manuel

The awards were made at the Annual Commencement exercises held in Bates Hall on June 16, 1938.

## *Requirements for Admission*

### *Regular Students.*

Applicants for admission who present evidence of completion of an approved secondary school course, or the equivalent of fifteen units (including one unit in Algebra and one in Plane Geometry) may be admitted as regular students, candidates for the Title of Associate in Engineering and also eligible to proceed later, if so desired, to the Degree of Bachelor of Business Administration in Engineering and Management offered by Northeastern University School of Business.

### *Conditioned Students.*

Applicants for admission who do not meet the full requirements for admission as regular students may, at the discretion of the Committee on Admission, be admitted as conditioned students provided such secondary school work as has been completed embraces one unit of Algebra and one unit of Plane Geometry. A conditioned student whose scholarship is satisfactory but who has not removed his conditions within the time specified by the Committee on Admission may be permitted to continue with his program of studies but on the completion of the chosen four year curriculum, he will receive a diploma indicating the completion of the program, but not carrying the award of the Title of Associate in Engineering. A conditioned student who removes his conditions within the time prescribed by the Committee on Admission will be reclassified as a regular student.

### *Special Students.*

Students who wish to register for a special program or for single courses will be admitted as special students, not candidates for the diploma or Title, provided their previous education and training permit them to pursue the courses with profit.

## *Entering Classes*

### *Division A Students.*

Students who enter school at the beginning of the normal school year in September are termed Division A students. Programs for these students can be arranged so that the work of the school year is completed by May or in early June by attendance three evenings a week. Summer courses are not necessary for Division A students.

*Division B Students.*

Students entering school in January are termed Division B students. These students terminate the first part of their studies by the end of May, attending three evenings a week. However, to complete the work of the Freshman year, it is necessary that they attend a summer course which meets for two evenings a week. Students pursuing this program may continue with the Sophomore program in the September of the year in which they enter school.

Summer attendance is not compulsory, but in the event that a student does not pursue a summer course, attendance is necessary over a period of five school years to complete graduation requirements.

*Late Registration*

Students should avoid late registration. It is of fundamental importance that they be present at the first class sessions if they are to be successful in their studies for the year. Those who find it necessary to register late may be permitted to enter the school provided that they have not lost so much work as to render it unlikely that they will succeed in their courses.

## *Tuition and Other Charges*

### *Matriculation Fee.*

A Matriculation Fee of \$5.00 is payable by each student on his initial entrance to the school. This fee is not returnable, except where the student is refused admission to the school.

### *Tuition Fees for all Curricula Except Chemistry*

#### *Division A Students.*

The tuition charge for a student who is carrying a full program in one of the regular curricula is \$120.00 a year, along with the customary laboratory charges. Students who wish to pay this fee in full at registration will be given a discount of 10%, their charges thus being \$108.00.

Students who do not elect this method of payment may pay their fees on an installment basis in six payments of \$20.00 as follows:

1st Payment	On registration
2nd payment	Week of October 16-21
3rd payment	Week of December 4-9
4th payment	Week of January 15-20
5th payment	Week of March 4-9
6th payment	Week of April 15-20

#### *Division B Students.*

The tuition charge for a student carrying a full program is \$80.00. This fee may be paid in one payment at a discount of 10%, the charges thus being \$72.00. Students who do not elect this plan of payment may pay their fees in four installments of \$20.00 as follows:

1st payment	On registration
2nd payment	Week of February 19-24
3rd payment	Week of March 18-23
4th payment	Week of April 15-20

### *Tuition Fees for Chemistry Curriculum*

#### *Division A Students Only.*

The tuition fees for a student carrying a full program is \$100.00 a year along with the customary laboratory charges as listed on page 27. These fees are payable in one payment at a discount of 10%, charges thus being \$90.00 plus laboratory fees, or in five installments of \$20.00 plus laboratory fees as follows:



1st payment	On registration
2nd payment	Week of October 16-21
3rd payment	Week of December 4-9
4th payment	Week of January 15-20
5th payment	Week of March 4-9

*In certain cases even the installment plan indicated above for Division A or Division B will not meet the needs of many deserving students. Such students are requested to confer with an officer of the school regarding a satisfactory plan for the payment of fees.*

The Officers of Administration require that students abide by the terms of their agreement and that all students make payments on the dates specified.

### *Tuition Regulations*

#### *Charges for Partial Attendance.*

In cases where students are not carrying a full program the tuition fees are payable as follows:

- (a) If the total charges are \$80.00 or more, fees may be paid in six installments or in one payment at registration at a discount of 10%.
- (b) If the charges are more than \$40.00 and less than \$80.00; fees are paid in six equal installments.
- (c) If the charges are \$40.00 or less, fees are payable in two successive monthly installments.

*No deduction from tuition fees is made because of late enrollment.*

#### *Bills.*

The school endeavors to mail bills to students ten days in advance of the payment date and also issues announcements in class to the effect that a payment date is falling due. In those cases where students have not received bills, they should intimate the fact to the school office. Students are reminded that the non-receipt of a bill does not exempt them from the responsibility of meeting their payments on the dates assigned and that failure to do so will cause the student's exclusion from class until he has conferred with an officer of the school.

In the event that absence from school is unavoidable at payment periods, students are advised to mail check or money order.

Students may obtain a statement of their accounts at any time.

### *Charges for Partial Attendance*

In the event of a student's withdrawal from school, he is charged on a pro rata basis for the weeks he has attended. These charges are as follows:

34 week courses — 4% of the total charges for each week of attendance.

20 week courses — 6% of the total charges for each week of attendance.

17 week courses — 8% of the total charges for each week of attendance.

The same charges are applicable in the event that a student abandons a part of his program. In addition the full Laboratory Fee is charged in those cases where a student is pursuing a Science.

### *Laboratory Fees*

All students taking courses which require laboratory work are charged laboratory fees in accordance with the following rates:

Aeronautical Laboratory . . . . .	\$5.00
Alternating Currents Laboratory . . . . .	5.00
Air Conditioning Laboratory . . . . .	5.00
Analytical Chemistry Laboratory . . . . .	15.00
Diesel Engineering Laboratory . . . . .	5.00
Electrical Laboratory . . . . .	5.00
Electrical Laboratory, Advanced . . . . .	5.00
Industrial Chemistry Laboratory . . . . .	15.00
Inorganic Chemistry Laboratory . . . . .	15.00
Mechanical Engineering Laboratory . . . . .	5.00
Organic Chemistry Laboratory . . . . .	15.00

For students taking Chemistry there is in addition a Chemistry laboratory deposit of \$5.00, the unused portion of which will be refunded after deductions for breakages.

### *Special Examination Fees*

The fee for each special examination for advanced standing, for conditioned students, or for students who have for justifiable cause omitted to take the regularly scheduled examinations is \$3. In those cases where students have for justifiable cause omitted to take a mid-term or pre-announced quiz, an examination fee of \$1.50 will be charged for the make-up quiz. In each case the fee must be paid before the examination is taken.

### *Charges for Damages*

Students who damage apparatus in the laboratories or who willfully destroy school property will be responsible for the replacement of such damaged articles or for the cost of replacement where this is undertaken by the school.

### *Cost of Drawing Materials*

Students taking Freshman Drawing should be prepared to expend a sum of approximately \$5.00 for drawing supplies, *exclusive of cost of a satisfactory set of drawing instruments.*

### *Diploma Fee*

On completing the curricular requirements for the Title of Associate in Engineering or for a certificate of completion the student will pay a diploma fee of \$10. This fee must be paid by May 15th in the year of the student's graduation.

### *Refund Policy*

Students who are forced to withdraw from a course or from the school are expected to notify the school office by completing the withdrawal blank which will be furnished.

Since the school assumes the obligation of carrying the student throughout the year for which he registers, and since the instruction and accommodation are provided on a yearly basis, the Executive Council of the Lincoln Technical Institute has ruled as follows:

- A. Application for refunds must be presented within forty-five days after withdrawals from school.
- B. Refund in the case of complete withdrawal from school will be granted by the Committee on Withdrawals for reasons which they deem adequate. Among the reasons deemed adequate are the following:
  - (a) Personal illness.
  - (b) Change of employment by direction of employer whether in the schedule of time or in place of employment.
  - (c) The situation where the student becomes the sole or partial support of the family so as to make it impossible for him to continue his studies.
  - (d) Loss of position.
  - (e) Change of residence.
  - (f) A voluntary change of employment, the hours or the residence being such that he is unable to continue attendance.

In all the above cases it is expected that a medical certificate, letter from employer, or other appropriate substantiating documentary evidence will be produced by the student.

# *Administrative Regulations*

## *Applications for Admission*

APPLICATIONS for admission should be filed as early as possible in order that the necessary investigations may be made and the status of each student definitely determined before the opening day.

## *Registration*

Each student is required to present himself at the School Office, and to have his course approved by the Dean to complete his registration. A student is expected to pay the first tuition installment and other fees required before beginning attendance.

Late registration will be permitted only at the discretion of the Dean.

## *The School Year*

The school year is divided into two semesters of seventeen weeks each. The first semester extends from September 18 to January 19, and the second semester from January 22 to May 17, except that make-up sessions for public holidays may extend either term. Attention is drawn to the fact that Division B students begin their studies on January 22.

## *Graduation Requirements*

Students may register for single subjects or for complete courses, provided such registration meets with the approval of the Dean; but to receive the Title of Associate in Engineering or certificate of completion the student must fulfill the following conditions:

- a. Regardless of the advanced standing credit he receives, he must have been in attendance for at least a year preceding the date on which he expects, to graduate; that is, he must complete at least one full year's work in the Lincoln Technical Institute.
- b. He must complete all the courses of his particular curriculum, either by attendance at this Institute, or by receiving advanced standing credit for those courses, or the equivalent of those courses as determined by the Dean.
- c. He must pass such final examinations as are required in the courses he has pursued. The various curricula have been arranged so that the courses can be completed in four years. However, an extension of time will be granted to those who wish to take longer to meet the requirements for graduation.



### *Sessions*

Classes meet on week-day evenings. There are no classes on Saturdays. A full schedule will include three evenings a week. As a rule classes are scheduled from 7 p.m. till 9 p.m., although occasionally classes continue until 9.30 p.m. Laboratory periods in Chemistry are of four hours' duration.

### *Attendance Requirements*

A careful record of attendance upon class exercises is kept for each student. Absence from regularly scheduled classes on any subject will seriously affect the standing of the student. It may cause the removal of certain subjects from his schedule and the listing of these as "conditioned subjects". However, if reasonable excuse for absence be presented, the student may be allowed to make up the time lost, and be given credit for the work; but he must complete the work at such time and in such manner as his instructor in the course shall designate.

A minimum attendance record of 70% must be maintained in all classes before a student will be admitted to examination.

### *Examinations and Quizzes*

Examinations and quizzes are held throughout the term at the discretion of the instructors. Quizzes are to be made up at the discretion of the instructor. Final examinations are required upon the completion of all courses. The following system of grading is used:

A	—	90 to 100	—	Excellent
B	—	80 " 89	—	Good
C	—	70 " 79	—	Fair
D	—	60 " 69	—	Lowest Passing Grade
F	—	50 " 59	—	Conditioned Failure
FF	—	Below 50	—	Complete Failure

A student marked "F" may receive one special examination. If he fails in that, he must repeat the course. A student marked "FF" must repeat the course. The fee for each special examination is \$3. Grades and reports are mailed to the students and will not be given out at the School Office. Under no circumstances will grades be given over the telephone.

It is to be noted that no student will be permitted to graduate who does not maintain a "C" average and that students who have not maintained such an average by the end of the Sophomore year will not be permitted to continue in school.



### *Transfers*

No students are permitted to change from one course to another without first consulting the Dean and receiving a Transfer Order signed by him.

### *Reports of Standing*

An informal report of the student's standing is issued at the end of the first semester; and the formal report, covering the year's record, is issued at the close of each year.

In the case of students who are under twenty-one years of age, reports may be sent to parents in the event of unsatisfactory work on the part of the student, non-compliance with administrative regulations, continued absence, and withdrawal. Parents of minors may obtain reports at any time on request.

### *Students Admitted with Advanced Standing*

Students who, upon admission, were granted provisional advanced standing credit, but did not present evidence of their eligibility to such credit, shall not be granted the diploma of the school, unless the credentials are presented to the Dean before the close of the first year of attendance.

### *Methods of Instruction*

Instruction is given by means of lectures, recitations, laboratory work, and practical work in the drawing rooms. Great value is set upon the educational effect of these exercises, which constitute the foundation of each of the courses. Oral and written examinations are held at the discretion of the instructors.

### *Subjects of Instruction*

On pages 62 to 71 will be found a detailed statement of the scope of the subjects offered in the various courses. The subjects are numbered, for convenience of reference in consulting the various curriculum schedules.

Required courses, and those prerequisite thereto, must have been successfully pursued before any advanced course may be taken. The student must have become proficient in all the elementary subjects before undertaking advanced work, except that special students who by virtue of experience can profit by an advanced course may be admitted to such a course by the Dean.

By careful consideration of the curriculum schedules, in connection with the description of subjects, the applicant for a special course may select, for the earlier part of that course, such subjects

as will enable him to pursue later those more advanced subjects which he may particularly desire.

### *Elective Subjects*

Students electing any course not required in their curriculum will be required to take all examinations in that course, and to attain a passing grade in it before they will be eligible for a diploma.

### *Diplomas*

Upon the satisfactory completion of any of the regular curricula, and the fulfillment of the conditions on pages 29 and 30 the student is entitled to receive a diploma. A graduation fee of ten dollars is required of all candidates for a diploma. This fee must be paid on or before May 15th in the year in which the student is to graduate.

The diploma with honor will be awarded to those students who have completed the curriculum for which they registered with an average of at least 85%.

Diplomas are awarded at the annual commencement exercises. These are held about the middle of June.

# Information Regarding Courses

## *Curricular Programs Leading to the Title of Associate in Engineering*

The Lincoln Technical Institute offers four-year courses in the following fields:

- Architectural Engineering
- Chemistry
- Civil Engineering
- Electrical Engineering
- Mechanical Engineering with Aeronautical or Air Conditioning Options
- Structural Engineering

On the satisfactory completion of a prescribed four-year course involving not less than 900 classroom hours the Title of Associate in Engineering is awarded to all regular students. Those students who entered with conditions and who have not been reclassified as regular students will be awarded a diploma signifying the completion of the courses but not carrying the award of the Title of Associate in Engineering.

All these courses are of strictly college grade. In those cases where students are unable, because of circumstances, to carry all of the work prescribed in any year, an extension of time will be granted by the Dean, who will determine which subjects shall be excluded, and also the order in which the omitted subjects shall later be studied.

Schedules of the various curricula are given on the following pages. The work of the first year is the same for all curricula except the Chemistry curriculum.

When a student elects a curriculum he is expected to complete all the subjects in that curriculum in order to receive the title or a diploma, unless he has the permission of the Dean to drop or omit certain subjects and substitute others for those omitted.

## *Architectural Engineering Course*

### *leading to the Title of Associate in Engineering*

Architectural Engineering is a profession which requires not only an intimate knowledge of the properties of steel, concrete, masonry, timber, and all of the other materials which enter into the structure of the building, but an acquaintance with the various styles of architecture as developed in previous civilizations, as well as the tendencies of modern practice, in order that these materials may be used and harmonize with the design of the building.

The course in Architectural Engineering undertakes to furnish the fundamental training necessary to start the student in his career. It prepares for the individual practice of Architecture, or for the supervision of construction. This curriculum will be of value to those who at present occupy minor positions in the architectural profession, and it is also possible for a student who plans to obtain employment in an architect's office to receive in his early training sufficient preparation for such work. He may then advance by combining theory with practice.

#### *First Year*

Engineering Mathematics  
Engineering Drawing  
Physics

#### *Second Year*

Advanced Mathematics  
Architectural Drawing  
Applied Mechanics

#### *Third Year*

Strength of Materials  
Architectural Design  
Hydraulics (1)  
Concrete (2)

#### *Fourth Year*

Engineering Structures  
\*Advanced Architectural Design  
Concrete Design (1)  
Materials of Construction and  
Foundations (2)

(1) signifies First Semester Course

(2) signifies Second Semester Course

These courses carry credit towards a six-year program leading to the Degree of B.B.A. in Engineering and Management offered by Northeastern University School of Business.

\*Students who plan to pursue a Degree Program must substitute Business and Industrial Management for this course.

## *Chemistry Course*

### *leading to the Title of Associate in Engineering*

THE Science of Chemistry and Chemical Engineering have undergone a marked development during the past thirty years. One has only to pause for a moment and consider the tremendous changes that have taken place in our ordinary lives during that period to recognize not only the important part that has been played by the Chemist and the Engineer, but also to appreciate the important part that they are likely to play in the future.

The Chemist is in demand in every industry. His aid is sought in the operation of plants for the production of such products as gas, coke, oil, paint, fertilizers, drugs, etc. His help is requested in the development of more economical processes, in the potential use of by-products, and in the actual discovery of new products in private laboratories or in the research laboratories of industry.

As a result of the training offered by this curriculum a student has the opportunity of entering the field of Chemistry at a point appropriate to his period of study. The training is sufficiently general so that a variety of industries is open to him, yet deals quite specifically with particular industries in which a person may be definitely interested.

#### *First Year*

Engineering Mathematics  
Physics  
Engineering Drawing

#### *Second Year*

Advanced Mathematics  
Inorganic Chemistry Lectures  
Inorganic Chemistry Laboratory

#### *Third Year*

Applied Mechanics  
Analytical Chemistry Lectures  
Analytical Chemistry Laboratory

#### *Fourth Year*

Electricity  
Organic Chemistry Lectures  
Organic Chemistry Laboratory

#### *Fifth Year*

Industrial Chemistry Lectures  
Industrial Chemistry Laboratory  
Business and Industrial Management



*Chemistry Course*  
*leading to a Diploma*

*First Year*

Inorganic Chemistry Lectures  
Inorganic Chemistry Laboratory

*Second Year*

Qualitative Analysis Lectures (1)  
Qualitative Analysis Laboratory (1)  
Quantitative Analysis Lectures (2)  
Quantitative Analysis Laboratory (2)

*Third Year*

Organic Chemistry Lectures  
Organic Chemistry Laboratory

*Fourth Year*

Industrial Chemistry Lectures  
Industrial Chemistry Laboratory

- (1) signifies First Semester Course  
(2) signifies Second Semester Course

These courses carry credit towards the Title of Associate in Engineering and the Degree of B.B.A. in Engineering and Management offered by Northeastern University School of Business. Students wishing to pursue programs for the Title or for the Degree should consult the Dean regarding particulars.

## Civil Engineering Course

### leading to the Title of Associate in Engineering

The purpose of this curriculum is to give the student an education in those subjects which form the basis of all branches of technical education, and a special training in those subjects comprised under the term "Civil Engineering." It is designed to give the student sound training, *both theoretical and practical*, in the sciences upon which professional practice is based.

Civil Engineering covers such a broad field that no one can become expert in its whole extent. It includes Topographical Engineering, Municipal Engineering, and Railroad Engineering. It covers land surveying, and construction of sewers, water works, roads and streets. All these branches of Engineering rest, however, upon a relatively compact body of principles. The students are trained in these principles by practice in the class-room and drawing-room, and, in addition are familiarized with the equipment used in Civil Engineering.

The curriculum is designed to prepare the student to take up the work of assisting in the location and construction of steam and electric railways, sewerage and water-supply systems.

#### First Year

Engineering Mathematics  
Engineering Drawing  
Physics

#### Second Year

Advanced Mathematics  
Surveying  
Applied Mechanics

#### Third Year

Strength of Materials  
Highway Engineering  
Hydraulics (1)  
Concrete (2)

#### Fourth Year

Engineering Structures  
Concrete Design (1)  
Materials of Construction and  
Foundations (2)  
\*Structural Drawing

(1) signifies First Semester Course

(2) signifies Second Semester Course

These courses carry credit towards a six-year program leading to the Degree of B.B.A. in Engineering and Management offered by Northeastern University School of Business.

\*Students who plan to pursue a Degree Program must substitute Business and Industrial Management for this course.

## *Electrical Engineering Course*

### *leading to the Title of Associate in Engineering*

The applications of Electricity have developed rapidly in recent years and to attain proficiency in this field students must have a good working knowledge of Mathematics and Physics. It is essential that students planning to take this course should realize the fundamental necessity of obtaining a solid foundation in these subjects.

The instruction has been carefully balanced between recitations, lectures, home work, reports, and laboratory tests in order to develop in the student the power of perception, of rational thinking and of applying theoretical principles to practical problems.

It is not the purpose of the curriculum to attempt the impossible — to turn out fully trained engineers in any of the various branches of the science. It is designed to lay a thorough foundation for future progress along the lines of work which may particularly appeal to the individual, and give him an adequate working acquaintance with the essential principles which underlie each of the more specialized branches of professional activity. *Parallel with the theoretical work runs a carefully planned course of laboratory work which is intended to develop the student's powers of planning work for himself.*

#### *First Year*

Engineering Mathematics  
Engineering Drawing  
Physics

#### *Second Year*

Advanced Mathematics  
Electricity I  
Electrical Laboratory I

#### *Third Year*

Applied Mechanics  
Electricity II  
Electrical Laboratory II

#### *Fourth Year*

\*Heat Engineering  
Electricity III  
Electrical Laboratory III

These courses carry credit towards a six-year program leading to the Degree of B.B.A. in Engineering and Management offered by Northeastern University School of Business.

\*Students who plan to pursue a Degree Program must substitute Business and Industrial Management for this course.

## *Mechanical Engineering Course*

### *leading to the Title of Associate in Engineering*

This curriculum is designed to give a foundation in those fundamental subjects which form the basis for all professional engineering practice, and especially to equip the engineer with a knowledge of the various phases of Mechanical Engineering. The course embraces instruction by textbook, lecture, drawing-room and laboratory.

All the mathematics required in the designing of machinery is given during the first two years so as to prepare for the designing and engineering courses given during the third and fourth years. The sequence of subjects from those of an elementary nature to Heat Engineering, Machine Design, etc., is arranged so that the student may have a complete understanding of the advanced courses.

Air Conditioning and Aeronautical options are available in this field.

The curriculum gives the student a good theoretical training and in addition devotes sufficient time to practical applications of theory so that he obtains a training which equips him for advancement in the field of Mechanical Engineering.

#### *First Year*

Engineering Mathematics  
Engineering Drawing  
Physics

#### *Second Year*

Advanced Mathematics  
Machine Drawing  
Applied Mechanics

#### *Third Year*

Strength of Materials  
Mechanism and Machine Design  
Hydraulics (1)  
Concrete (2)

#### *Fourth Year*

Heat Engineering  
\*Machine Design  
Engineering Laboratory

(1) signifies First Semester Course

(2) signifies Second Semester Course

### **\*\*Aeronautical Option**

(The first two years of this program are identical with those of the Mechanical Engineering program.)

#### *Third Year*

Strength of Materials  
Aircraft Engine Design  
The Airplane and its Engine

#### *Fourth Year*

\*Advanced Airplane Engine Design  
Aeronautical Laboratory  
Airplane Design

### **\*\*Air Conditioning Option**

(The first two years of this program are identical with those of the Mechanical Engineering program.)

#### *Third Year*

Strength of Materials  
Air Conditioning Design  
Heating and Air Conditioning

#### *Fourth Year*

\*Advanced Air Conditioning  
Advanced Air Conditioning Design  
Air Conditioning Laboratory

These courses carry credit towards a six-year program leading to the Degree of B.B.A. in Engineering and Management offered by Northeastern University School of Business.

\*Students who plan to pursue a Degree Program must substitute Business and Industrial Management for this course.

\*\*These options will be offered only if sufficient students enroll.



## *Structural Engineering Course*

### *leading to the Title of Associate in Engineering*

The purpose of this curriculum is to give the student a special training in those subjects included in the term "Structural Engineering." It is designed to give the student sound and thorough training, both theoretical and practical, in the science on which professional practice is based.

Structural Engineering covers such a broad field that no one can become expert in its whole extent. It includes the design and construction of girders, columns, roofs, trusses, arches, bridges, buildings, walks, dams, foundations, and all fixed structures and movable bridges. It includes a knowledge of the relative merits of the design and construction of buildings, bridges and structures composed of different materials used by the engineer, such as concrete, reinforced concrete, timber, cast iron, and steel.

The curriculum is so arranged as to prepare the student to take up the work of assisting in the design and construction of structures; to undertake intelligently supervision of erection work in the field and general contracting.

### *Courses of Instruction*

#### *First Year*

Engineering Mathematics  
Engineering Drawing  
Physics

#### *Second Year*

Advanced Mathematics  
Structural Drawing  
Applied Mechanics

#### *Third Year*

Strength of Materials  
Structural Design  
Hydraulics (1)  
Concrete (2)

#### *Fourth Year*

Engineering Structures  
\*Advanced Structural Design  
Concrete Design (1)  
Materials of Construction and  
Foundations (2)

(1) signifies First Semester Course

(2) signifies Second Semester Course

These courses carry credit towards a six-year program leading to the Degree of B.B.A. in Engineering and Management offered by Northeastern University School of Business.

\*Students who plan to pursue a Degree Program must substitute Business and Industrial Management for this course.

## Curricular Programs Leading to a Degree

THE Lincoln Technical Institute works in conjunction with the School of Business, Northeastern University, in offering a six-year program leading to a degree of Bachelor of Business Administration in Engineering and Management offered by the School of Business. This degree is offered with the following majors: Aeronautical, Air Conditioning, Architectural, Civil, Diesel, Electrical, Mechanical, and Structural. A similar degree course is available with a Chemistry major, particulars of which will be furnished on page 44.

In a recent study made of engineering graduates it was quoted that 62.1% entered industrial, commercial and financial fields where business courses, particularly in management and finance, would have substantially increased their value. Also, of the 25% entering professional practice or teaching, a large number would have benefited if they had received beforehand some form of business training.

The combination of Engineering and Business subjects is a valuable one as demonstrated by surveys undertaken by various engineering societies and colleges:

### *Fields of Work of Engineering Graduates*

	Number	Per Cent	
Industrial	985	41.3	} 62.1%
Commercial	387	16.3	
Financial	108	4.5	
Professional	595	25.0	
Governmental and Miscellaneous	306	12.9	
	<hr/> 2,381	<hr/> 100.0	

Students pursuing a program of Engineering and Management subjects ordinarily complete the work required for the Title of Associate in Engineering before starting business study. The following minimum credits and courses are required to meet degree requirements.

## General Course

*leading to the B.B.A. Degree in Engineering and  
Management*

	Hours Semester
<i>Lincoln Technical Institute:</i>	
Eleven approved full courses in chosen engineering program or their equivalent (Any of the curricula except Chemistry* listed on page 34 to page 41).	44
<i>School of Business:</i>	
Accounting Aids to Management	4
Business Reports and Conferences	2
Business Economics	4
Financial Organization	4
Business and Industrial Management	4
Principles of Production	2
Scientific Management	2
Principles of Purchasing	2
Industrial Management Problems and Policies	4
	28
**Business Readings	4
<i>Occupational Experience</i>	24
	<hr/>
Total Semester Hours Required for Degree	100

\*Particulars of the Degree Course with a Chemical Engineering Major are to be found on Page 44.

\*\*In addition each student must register for a Business Readings Course for which there are no lectures. This course is designed to broaden the student's acquaintance with selected readings in the field of business.

## *Chemistry Course*

*leading to the B.B.A. Degree in Engineering and Management  
with a Chemical Engineering Major:*

### *First Year*

Engineering Mathematics  
Physics  
Engineering Drawing

### *Second Year*

Advanced Mathematics  
Inorganic Chemistry Lectures  
Inorganic Chemistry Laboratory

### *Third Year*

Applied Mechanics  
Analytical Chemistry Lectures  
Analytical Chemistry Laboratory

### *Fourth Year*

Electricity  
Organic Chemistry Lectures  
Organic Chemistry Laboratory

### *Fifth Year*

Industrial Chemistry Lectures  
Industrial Chemistry Laboratory  
Business and Industrial Management

### *Sixth Year*

Accounting Aids to Management  
Business Reports and Conferences (2)  
Principles of Purchasing (2)  
Business Economics

### *Seventh Year*

Industrial Management Problems and Policies  
Principles of Production (2)  
Scientific Management (2)  
Financial Organization  
\*Business Readings

\*In addition each student must register for a Business Readings Course for which there are no lectures. This course is designed to broaden the student's acquaintance with selected readings in the field of business.

(2) Signifies Second Semester Course.



ELECTRICAL MEASUREMENTS LABORATORY



ONE OF THE CLASSROOMS



## *Special Courses*

In addition to the regular curricula the Lincoln Technical Institute offers single unit courses of an intensive nature for the benefit of those who do not wish to pursue a complete curriculum but who wish rapid and immediate knowledge of certain fields, whether to supplement former training or to obtain preparation which will permit them to enter a new line of endeavor. At the present time the following courses are available:

- Artificial Light and its Applications
- Astronomy
- Blue Print Reading and Estimating
- Electronics
- Heating and Air Conditioning
- Sub-Freshman Course
- Refrigeration
- The Airplane and its Engine

On the successful completion of each of these courses, an appropriate certificate is awarded, which indicates that the work has been satisfactory.

### *Artificial Light and Its Applications*

In recent years there has been a growing tendency to give much closer attention to the very real benefits to be gained through the use of scientifically applied light. This tendency has been fostered by the intensive campaigns carried on by the electrical industry as a whole, until at the present time it may be said that the general public has become "light conscious".

The field of scientific lighting should be a rich one in the coming years, especially to those who have a good working knowledge of artificial lighting.

This course, therefore, has been designed to give to the student of architectural or electrical engineering, to the electrician, to the electrical contractor, a basic knowledge of lighting and light control, as well as examples and solutions of special problems, as solved by competent engineers.

The following subjects will be covered:

- History of Lighting
- Language of Lighting
- Photometry
- Light and Seeing
- Color
- Equipment for Control of Light

Interior Lighting Design  
 Industrial Lighting Design  
 Commercial Lighting Design  
 Display Lighting Design  
 Home Lighting Design  
 Farm Lighting Design  
 Flood Lighting Design  
 Recreation Lighting Design  
 Architectural Lighting Design  
 Electrical Advertising

This course will meet on Mondays and Wednesdays, beginning September 18 for a period of seventeen weeks, the class period lasting from 7 p.m. to 9 p.m.

Fees:	Matriculation fee	.	.	.	.	.	.	\$ 5.00
	Tuition fee	.	.	.	.	.	.	40.00

## *Astronomy*

A non-mathematical course in general astronomy dealing with the solar system and the stellar universe. Many interesting astronomical facts are illustrated by experiment.

The method of constructing amateur telescopes will be thoroughly discussed and demonstrated.

The observation platform is located directly opposite the astronomical laboratory on the roof of the West Building. In addition to areas isolated for work with astronomical instruments there is ample room here for class observation of the constellations and the many other interesting objects in the sky.

Methods used for locating stars will be practiced during these observation periods which will come directly after each lecture if visibility is good.

This course will meet on Wednesdays, beginning September 20 for a period of thirty-four weeks, the class period lasting from 7 p.m. to 9. p.m.

Fees:	Matriculation fee	.	.	.	.	.	.	\$ 5.00
	Tuition fee	.	.	.	.	.	.	40.00

## *Blue Print Reading and Estimating*

As the title indicates, this course is devoted to instruction and practice in reading the various types of plans used in construction work. The work covers the methods of representing materials and details of construction. Blue prints dealing with all phases of building construction are studied. At each stage the necessary processes of estimating are dealt with, including the essential

practical mathematics. An outline of the various topics follows: drawing, the language of engineers; simple forms of projection; blue prints; what they are, how they are made, what they show; reading simple blue prints; calculations for excavations; continuation of reading plans; masonry and cement; blue prints of larger buildings and machine drawings; brick work; roofing and shingling; comparison of finished plans or larger buildings with plans from which estimates are made; exterior finish; lathing and plastering; detail plans; interior finish; stairs, windows, etc.; pipe plans; general plumbing and heating; electrical plans; wiring and lighting; piping plans; methods of estimating heating; elementary ventilation; lighting design; painting specifications; summation of material schedules; placing of orders for material.

This course meets on Thursdays, beginning September 21 for a period of fifteen weeks, the class period lasting from 7 p.m. to 9 p.m.

Fees:	Matriculation fee	.	.	.	.	.	.	.	\$ 5.00
	Tuition fee	.	.	.	.	.	.	.	10.00

## *Electronics*

The extended application of electron tubes to the fields of communication, radio, power, and control indicates the pronounced desirability that every electrical engineer have a knowledge of the subject of electronics.

This course should prove extremely valuable to Electrical Engineers and to others who are employed in the electrical field and who may gain advancement because of a knowledge of the subject matter of the course. In this course every effort has been made to avoid intricate mathematics. It has really been designed for the practical man who is interested in a knowledge of the fundamental, as well as the more advanced, practical application of electronic devices. The course will be mainly a lecture course, but will be supplemented by demonstrations. The following outline gives the basic material to be covered. However, additional material will be added as the course progresses, if the opportunity permits.

### *Outline of Course*

- I Fundamentals of Electronic Tube Circuits
  - A Properties of electrons
  - B Voltage, current, and power
  - C Alternating current circuits
- II Thermionic Tubes
  - A Electron emission
  - B Types of electron tubes
  - C Vacuum tube characteristics

- III Vacuum Tube Amplifiers
  - A Resistance coupled amplifiers
  - B Impedance coupled amplifiers
  - C Transformers coupled amplifiers
  - D Power and voltage amplifiers
  - E Industrial uses of amplifiers
- IV Gaseous Triodes
  - A Theory
  - B Types of gaseous triodes
  - C Uses of gaseous triodes
- V Light Sensitive Tubes
  - A Production of electrons by light
  - B Theory of photo tubes
  - C Characteristics of photo tubes
  - D Application of photo tubes
- VI Miscellaneous Tubes and Circuits
  - A Rectifiers and filter circuits
  - B Cathode ray tubes and circuits
  - C Fundamentals of television
  - D General applications of electron tubes to industry

This course will meet on Thursdays, beginning January 25 for a period of seventeen weeks, the class period lasting from 7 p.m. to 9 p.m.

Fees:	Matriculation fee	.	.	.	.	.	\$ 5.00
	Tuition fee	.	.	.	.	.	20.00

## *Heating and Air Conditioning*

This course consists of lectures and simple class demonstrations. The first term covers the fundamental principles involved in heating and air conditioning. This includes the study of the properties of air, the psychrometric chart and tables, the law of partial pressures, methods of measuring temperature, humidity and air velocities, conductivity of various building materials, properties of different types of insulation and methods of figuring heat losses for all types of building. Numerous problems are given covering all the various phases discussed in class.

The second term covers the heating and air conditioning of residences with the following various types of system; warm air (gravity and forced), steam (pressure, vapor, vacuum), hot water (gravity and forced circulation), split system and dual system. The advantages and disadvantages of the different systems are discussed together with the cost of installing the systems.

A typical residence is used for class study, and the heating of this house is discussed using the several types of systems. The controls for all types of heating systems are explained, and also the different types of furnaces, boilers, oil burners, gas burners and stokers.

This course will meet on Thursdays, beginning September 21 for a period of thirty-four weeks, classes meeting from 7 p.m. to 9 p.m.

Fees:	Matriculation fee	.	.	.	.	.	.	.	\$ 5.00
	Tuition fee	.	.	.	.	.	.	.	40.00

### *Sub-Freshman Course*

This course is designed for students who have not completed Algebra and Geometry, or for those who wish to review these subjects before undertaking the work of the Freshman year because of the remoteness of their former period of study.

September 18 to May 16

*Algebra*                      *Geometry*  
*Engineering Mathematics*  
*Engineering Drawing*

Tuition: \$120.00, payable in 6 installments or in one payment at a discount of 10%.

These classes meet as follows:

Mondays and Thursdays from 7 p.m. to 10 p.m.

Wednesdays from 7 p.m. to 9 p.m.

June 3 to September 5

*Practical Physics*

Tuition: \$40.00, payable in two installments.

This class meets as follows:

Mondays and Thursdays, 7 p.m. to 9:30 p.m.

Students who complete these courses will be admitted to the work of the Sophomore year. This program permits them to save a year which would otherwise be lost, since it enables them to graduate in the customary period of four years.



## *Refrigeration*

This course is designed for students who desire a knowledge of practical refrigeration. Refrigeration thermodynamics are discussed briefly but carefully so that all members of the class will have sufficient background.

The following are thoroughly studied: Compression, absorption, and steam jet systems. Condensers, evaporators, heat exchangers. Controls. Comparison of refrigerants; also insulants. Installation, operation problems, testing codes. Applications of refrigeration with particular emphasis on air conditioning. Some of the evenings will be devoted to laboratory tests.

This course will meet on Mondays, beginning September 18 for a period of thirty-four weeks, the class period lasting from 7 p.m. to 9. p.m.

Fees:	Matriculation fee . . . . .	\$ 5.00
	Tuition fee . . . . .	40.00

## *The Airplane and its Engine*

This is a foundation course covering the technical aspects of the airplane, airplane engines, and aerial navigation. Subject matter includes theory of flight, airplane construction, performance, internal combustion engines, airplane engine construction and types, propellers, instruments, and airplane types. Also covered briefly are elementary meteorology and navigation. This course is designed not only as an introduction to aeronautics for the engineering student, but also to provide the student pilot an inclusive course in preparation for governmental examinations.

This course will meet on Fridays, beginning September 22 for a period of thirty-four weeks, the class period lasting from 7 p.m. to 9 p.m.

Fees:	Matriculation fee . . . . .	\$ 5.00
	Tuition fee . . . . .	40.00



A DRAWING ROOM



ONE OF THE CHEMISTRY LABORATORIES

## Engineering Equipment

### *Field Instruments of Civil Engineering*

For work in the field the Civil Engineering Department possesses various surveying instruments representing the principal makes and types in general use.

The equipment includes six surveyors' compasses, two Keuffel and Esser transits, five Buff and Buff transits, one Buff and Buff triangulation transit, three Berger transits, one Hutchinson transit, two Wissler transits, one Gurley transit, one Poole transit, three Berger levels, two Keuffel and Esser levels, two Buff and Buff levels, one Bausch and Lomb precise level, two Gurley plane tables, two Buff and Buff plane tables, two Keuffel and Esser plane tables, and one Berger plane table.

There are Locke hand levels, lining rods, leveling rods, stadia rods, tape rods, engineers' and surveyors' chains, steel and metallic tapes, one 100-foot Invar steel tape, and all the miscellaneous equipment necessary to outfit the parties that the instruments will accommodate. The extent of the equipment and scope of the field work itself are designed to train the student's judgment as to the relative merits of the various types of field instruments.

For instruction in advanced surveying the equipment consists of an Invar steel tape and base line tapes, with the necessary spring balances, thermometers, etc., for base line work. Equipment for converting some of the better transits into instruments capable of stellar and solar observations is available, together with a Berger solar transit. For triangulation a Berger 10 second repeating theodolite and a Buff and Buff 20 second repeating precise triangulation transit are used. A Buff and Buff Coast and Geodetic level and Coast and Geodetic level rod enables precise leveling. For barometric leveling there is an aneroid barometer, and for hydrographic surveying a sextant and a Gurley electric current meter.

### *Electrical Engineering Laboratories*

A large area in the basement of the South Building is given over to the electrical dynamo laboratory.

#### *Dynamo Laboratory*

This laboratory is equipped with sixty generators and motors of different types, the size and voltage ratings being selected to reduce as much as possible the risk from high voltage apparatus while making available to the student commercial apparatus such that the various quantities it is desired to measure will be of reasonable dimensions.

Machines from five to twenty-five kilowatt capacity are used principally for this reason, but also because the student in his engineering practice early comes in contact with large and varied machinery in power houses and electrical plants generally.

For D. C. working, among others there are two sets of specially matched direct current six-kilowatt, 125-volt compound generators, which will work as shunt machines. Both pairs are driven individually by 15 H.P., 230-volt motors and used principally for parallel operation and similar work. A large 230-volt, 12 H.P., 200 R.P.M. Sturtevant motor is used for retardation tests, and an assortment of series, shunt and compound motors each fitted with brake pulleys, are used for routine motor testing.

### *A. C. Machinery*

For A. C. working there is a fifteen-kilowatt (unity p.f.) three-phase, 240-volt alternator driven at sixty cycles, and a 7.5 kilowatt G. E. machine with special armature taps so that it may be used as single-phase, two-phase, three-phase, or six-phase synchronous motor.

There are also two 12.5 kilowatt (eighty per cent, p.f.) G. E. machines having each armature coil tapped out separately and giving various phase arrangements; a five-kilowatt Holtzer Cabot machine with three rotors, making it available as either a squirrel cage, wound rotor, or synchronous machine; a G. E. single-phase clutch motor, a type R. I. induction motor, a Wagner single-phase motor; two Wagner motors arranged for concatenation control, one five-kilowatt Holtzer three-phase synchronous converter, a Westinghouse 7.5-kilowatt two-phase motor, a ten horsepower Fynn-Weichsel Unity power factor motor, and a Westinghouse Synchronous Converter (10 kilowatt, 240 D. C. volts; one, three, and six phase; sixty cycles).

Recently installed in this laboratory is a General Electric Electrodynamometer of 15 horse power capacity, 2000 to 4000 R.P.M. direct connected on one end to a 10 horse power, 3 phase wound rotor induction motor. By means of external resistance control, this motor may have its speed reduced to 50% of its rated value and still carry its rated torque. The shaft extension on the other side of the dynamometer can be used for testing other electrical equipment of appropriate size, such as D. C. motors, single phase machinery, etc. A starting panel, including latest types of automatic control equipment, has been installed with the electrodynamometer.

### *Auxiliary Equipment*

For transformers there are six single-phase G. E. type H units wound for 550 volts and 220-110 volts; a set of transformers with Scott connection taps, and a Type R. O. constant current transformer, primary winding for 220-190 volts and secondary for 6.6



amperes, 310 volts maximum fitted with a load of eighty candle power 6.6-amperes, sixty-watt nitrogen filled tungsten lamps, and a pair of 550-220 110 volts G. E. three-phase transformers of 5-kva capacity. There is also a full equipment of necessary control and regulating appliances and twelve movable test tables fitted with the necessary terminals, switches, circuit breakers, etc., for setting up the various combinations required from time to time. Each student when performing an experiment does the complete wiring, no apparatus in the laboratory being permanently wired up except as to its normal, self-contained circuits.

Power is supplied over a special set of feeders, from the Boston Edison system. Two power circuits are available: one of 50 K. W. capacity supplying 60 cycle, three phase, alternating current at 230 volts and the other providing 115-230 volt three wire direct current. For lowering the voltage in transformer testing G. E. induction regulators are used.

There are also speed governors and Tirrel regulators, both A. C. and D. C., capable of being used with any special machines found desirable at any particular time.

The Instrument Room is supplied with seventy-six high grade General Electric Company and Weston Electric Instrument Corporation alternating current voltmeters and ammeters, with a number of potential and current transformers, and with three-polyphase and sixteen single-phase indicating wattmeters, each of double current and double voltage ranges.

For direct current working there are sixty-one voltmeters (of triple range), ammeters and millivoltmeters of the above makes. There are twenty-five standard shunts of ranges from 10 to 100 amperes with uniform drops of fifty millivolts to go with the millivoltmeters.

There is also a large and varied assortment of auxiliary equipment such as sliding rheostats for circuit control, non-inductive loading resistance, air core loading reactances, frequency indicators, power factor indicators, etc.

## *Chemical Laboratory Equipment*

For experiments and investigations in Chemistry there are available two laboratories with the following equipment:

### *Analytical Chemistry*

The laboratory for analytical chemistry is fully equipped for giving instruction in the usual undergraduate courses. Each student is supplied with the necessary Pyrex and Kimble laboratory glassware, Sillimanite and Coors porcelain, and the standard pieces of hardware. Special equipment of all types including an ample supply of platinum ware is available at the stockroom.



An adjoining balance room is equipped with Becker and Voland balances suitable for quantitative analytical work.

### *Industrial Chemistry*

This laboratory is equipped with high pressure steam, vacuum, and the facilities usually found in a chemical laboratory. The various instruments and other chemical equipment necessary for the examination, testing, and analysis of the raw materials, intermediate and final products of the various industries are at hand.

The electrical equipment includes a Kimley electro-analysis machine for the determination of copper, lead, nickel, and zinc; a Hevi-duty electric furnace for use in ignition and combustion work; a Hoskins electric combustion furnace suitable for use in steel analysis; a Freas drying oven capable of adjustment for various temperatures; and numerous electric hot plates and sand baths. For these power is available in 220, 110, 12, 6, and 2 volts D. C., and 110 volts A. C. There are also available the necessary ammeters, voltmeters, galvanometers, and pyrometers.

### *Organic Chemistry*

Equipment is available for undergraduate courses in:

- (a) Preparation of organic compounds.
- (b) Qualitative analytical work.

The molecular weight determination apparatus consists of a Victor Meyer outfit and several Dumas flasks.

For electro-chemical work rheostats, voltmeters, ammeters, and a converter capable of delivering alternating current at 11 amperes are available.

Drying operations are carried out with the aid of a steam-heated drying chamber, and electrically heated drying oven, drying pistols, and vacuum desiccators.

Other equipment consists of several mechanical stirrers, mercury seals, hot water funnels, and extraction outfits.

Steam lines on the benches supply the steam for steam distillations, eliminating the necessity of individual steam generators.

### *Mechanical Engineering Laboratories*

The Mechanical Engineering Department has well-equipped laboratories, containing new and modern machines run by steam, gasoline, water, and electricity. A separate high-pressure steam line connected directly with the boilers in the University's main power plant enables the steam-driven apparatus to be run with steam under full boiler pressure.

### *Steam Apparatus*

The steam apparatus includes the following equipment. A Uniflow steam engine of fifty horsepower capacity and of the latest design, so equipped that a complete engine test may be run on the machine. The auxiliary apparatus connected with the engine includes a prony brake for measuring the output of the machine while a surface condenser is tied in with the exhaust line in order to obtain the steam consumption.

A Chicago steam-driven air compressor is arranged to make complete tests on both the steam and air ends of the machine. This compressor is also connected to a surface condenser.

A Warren direct-acting steam pump is connected up to run a standard pump test, the steam end being tied in with a surface condenser and the water end with a rectangular weir for measuring the quantity of water delivered by the pump.

A twelve horsepower Curtis steam turbine of the impulse single-stage type, to which is directly connected an absorption dynamometer or water brake, is available for testing. The steam end of this turbine is piped to a Worthington surface condenser and also to a Schutte-Koerting condenser.

A small Sturtevant horizontal steam engine is equipped for a complete test with a prony brake for the measurement of power output.

Other steam-driven apparatus includes a steam pulsometer pump, a steam injector, two small vertical steam engines for valve setting experiments, a heat exchanger for determining heat transfer between steam and water and a Lee steam turbine of twelve horsepower rating driving a two-stage centrifugal pump.

Apparatus is also available for experiments on the flow of steam through an orifice and for the determination of moisture content in steam through the use of throttling and separating steam calorimeters.

### *Hydraulic Equipment*

The hydraulic equipment in the laboratory includes a two-stage centrifugal pump with a dual drive or separate drive as may be desired. The drive is either direct from a fifteen horsepower direct current motor or else direct from a Lee single-stage steam turbine.

A six-stage centrifugal pump direct-connected to a forty horsepower direct current motor has been installed for testing purposes. The motor, through a speed regulator, has a range in speed from 900 R.P.M. to 2200 R.P.M. The pump is rated at 180 G.P.M. against a head of 450 feet. The capacity of the pump is measured by a Venturi tube of the latest design. There is also a rotary pump driven direct by an electric motor.

Other machines for hydraulic experiments are a triplex power pump, driven by a three horsepower electric motor, a hydraulic

turbine of the Pelton Wheel type, a small single-stage centrifugal pump driven directly by a  $\frac{3}{4}$ -horsepower gasoline engine, a triangular and a rectangular weir for measuring quantities of water discharged by the various pumps in the laboratory, besides the necessary tanks, platform scales, and hook gages.

### *Internal Combustion Engines*

Under the internal combustion laboratory equipment may be listed a Fairbanks-Morse ten horsepower gasoline and oil engine, so arranged that tests may be run with various kinds of fuels and complete test data obtained; a new Plymouth automobile engine arranged to run tests with different fuels and carburetors; and two gasoline airplane engines for demonstration purposes.

Several Diesel engines of various types have been installed, including a 30 H.P. high speed Fairbanks-Morse machine driving a 19 K.W. D. C. Generator, an auto truck Diesel, and two small engines for dismantling and demonstration purposes.

### *Refrigeration, Heating, and Air Conditioning*

The refrigeration equipment includes a  $\frac{3}{4}$ -ton Frick ammonia refrigerating machine equipped with a double pipe condenser, ammonia weighing tanks and a specially designed indicator, and a standard air-cooled Frigidaire sulphur dioxide machine. Both of these machines are arranged for testing purposes. A Triumph compressor is also available for demonstration work. Apparatus for the determination of heat transference through various substances is available.

A constant temperature room is equipped with apparatus for either heating or cooling. Additional equipment consists of a warm air pressure system with Timken oil burner equipment and complete automatic controls, a Fedders type unit heater, and oil burning equipment and controls for demonstration purposes.

For fan testing, a multi-blade blower of Sturtevant manufacture driven by an electric motor is set up for running different tests with varying capacity.

A Carrier air conditioner, motor driven, and equipped with automatic humidity control, is arranged for testing.

### *Testing Material and Heat Treatment Equipment*

The testing materials equipment includes a 50,000 pound Olsen Universal Testing Machine equipped for tension, compression, transverse bending, and shearing tests; a 2,000 pound automatic shot cement tester equipped with transverse tools; a 10,000 inch pound Riehle torsional testing machine; a 220 foot pound Riehle impact tester for Charpy Izod or tension tests; a White-Souther motor driven fatigue tester holding two specimens at one time;

and a Ro-Tap sieve shaker with time switch and sieves for mechanical analysis of aggregate. Among the measuring instruments are Brinell and Olsen-Firth hardness testers; extensometers for tension, column, and beam tests, and a torsion meter.

For heat treatment, an electric furnace and a Stewart triple-purpose gas-fired furnace are available with pyrometers for temperature measurements.

For studying the effects of heat treatment, a large metallographic outfit of Bausch & Lomb make is used. This apparatus makes possible a magnification of from 125 to 2600 diameters for inspection and taking photographs of crystalline structures of metals. Equipment is available for polishing and etching specimens in preparation for examination of the crystalline structure of the metal being studied.

Polaroid equipment for photo-elastic stress analysis is also available.

### *Miscellaneous Equipment*

In addition to the apparatus mentioned above, the oil testing equipment includes a Saybolt Universal viscosimeter for viscosity determination, a Cleveland open cup tester for determining the flash point and fire point of different grades of oil, a Conradson carbon residue apparatus, a steam emulsion apparatus, a water power centrifuge, a cloud and pour test apparatus, a Union oil colorimeter for color number determination, and a Thurston friction oil tester for determining the durability and lubricating prospects of oils.

An Emerson fuel calorimeter is used for finding the calorific content of solid and liquid fuels, and a Junkers gas calorimeter is available for determining the heat content of gaseous fuels. For calibrating gages, two dead weight gage testers of 200 pounds and 500 pounds capacity are used for pressure gages, while for vacuum gages a water aspirator and a motor driven vacuum pump are available.

For measuring the flow of water in pipe lines, a Pitot tube, orifice, Venturi meter, and water meter are located in a pipe line for testing.

Apparatus for measuring flow of air includes a Pitot tube, an orifice, and an anemometer, besides the necessary draft gages.

Apparatus for measuring flow of steam consists of a calibrated orifice and a steam flow meter. A recording steam pressure gage is also available.

An experiment on "Friction of Drives" includes apparatus consisting of three pulleys of different materials with three different kinds of belts, which make possible nine tests with various combinations.

A motor-driven vacuum pump with a rated capacity of six cubic feet of free air per minute under  $29\frac{1}{2}$  inches of mercury vacuum is available for tests.



Included among the measuring instruments are five steam engine indicators, two internal combustion engine indicators, four hand tachometers (centrifugal type) with three speed ranges from 0 to 4000 R.P.M., one tachograph, one tachoscope, one rotoscope for speed and vibration determinations, one recording thermometer, planimeters, revolution counters, thermometers, pressure gages, and a portable strobotac.

A small machine shop is used for maintenance work of the laboratory and for thesis work. The machines available are a sixteen-inch motor-driven South Bend engine lathe, two belt-driven engine lathes, a vertical drill press, a small vertical drill, a horizontal milling machine, a shaper, a power hack saw, a motor driven double emery wheel, an arbor press, two nine-inch South Bend Workshop lathes, and an Eisler spot welding machine. There are also an anvil and a small hand forge for forging purposes.

### *Design and Drafting Rooms*

The School possesses large, light, and well-equipped drawing rooms for the carrying on of the designing and drafting which forms so important a part of engineering work. These rooms are supplied with lockers containing the drawing supplies, and files containing blue prints, and photographs of machines and structures that represent the best practice. Drafting room blackboards are equipped with traveling straightedge devices which facilitate speed and accuracy in blackboard demonstrations.

### *Physics Department*

The Physics equipment has been carefully selected and is ample for demonstrating physical principles. The following apparatus is available for this purpose:

Motor driven Hyvac pump; mechanical oscillator; elasticity apparatus; Joly balance; barometers; pulleys; specific gravity bottles; torsion balance; eight-foot slide rule; wave apparatus; spherometers; organ pipes; tuning forks; Hartl optical disk; arc illuminator; projection lantern; refraction apparatus; metronome; lenses; calorimeters; hydrometers; thermometers; burners; apparatus for measuring latent heat, specific heat, expansion and mechanical equivalent of heat; optical bench and supplies; diffraction grating; spectroscopes; rheostats; galvanometers; magnets; electrostatic apparatus; electroscope; Wimshurst machine; induction coil; ammeters; voltmeters; resistance boxes; condensers; wheatstone bridges; thermocouples; demonstration table equipped with water, compressed air, exhaust hood, 110 volts D.C., 110 volts A.C., and 220 volts A.C.



## *List of Individual Subjects In All Curricula*

Subject	Fee
1. Advanced Mathematics	\$40.00
2. Aeronautical Laboratory	40.00†
3. Air Conditioning, Advanced	40.00
4. Air Conditioning Design	40.00
5. Air Conditioning Design, Advanced	40.00
6. Air Conditioning Laboratory	40.00†
7. Aircraft Engine Design	40.00
8. Airplane and Its Engine, The	40.00
9. Airplane Design	40.00
10. Airplane Engine Design, Advanced	40.00
11. Applied Mechanics	40.00
12. Architectural Design	40.00
13. Architectural Design, Advanced	40.00
14. Architectural Drawing	40.00
15. Business and Industrial Management	40.00
16. Chemistry, Analytical Lectures and Laboratory	100.00†
17. Chemistry, Industrial Lectures and Laboratory	100.00†
18. Chemistry, Inorganic Lectures and Laboratory	100.00†
19. Chemistry, Organic Lectures and Laboratory	100.00†
20. Concrete	20.00
21. Concrete Design	20.00
22. Electricity I	40.00
23. Electricity II	40.00
24. Electricity III	40.00
25. Electrical Laboratory I	40.00†
26. Electrical Laboratory II	40.00†
27. Electrical Laboratory III	40.00†
28. Engineering Drawing	40.00
29. Engineering Laboratory	40.00†
30. Engineering Mathematics	40.00
31. Engineering Structures	40.00
32. Heat Engineering	40.00
33. Heating and Air Conditioning	40.00
34. Highway Engineering	40.00
*35. Hydraulics	20.00
36. Machine Design	40.00
37. Machine Drawing	40.00
38. Materials of Construction and Foundations	20.00
39. Mechanism and Machine Design	40.00
40. Physics	40.00
41. Strength of Materials	40.00
42. Structural Design	40.00
43. Structural Design, Advanced	40.00
44. Structural Drawing	40.00
45. Surveying	40.00

\* Not offered in 1939-40.

† Plus Laboratory Fee.

## Description of Courses

THE LINCOLN TECHNICAL INSTITUTE reserves the right to advance requirements regarding admission, to change the content and the arrangement of courses, the requirements for graduation, tuition fees, and other regulations affecting the student body. Such regulations will affect old and new students.

### 1. *Advanced Mathematics. (Prerequisite, Engineering Mathematics)*

In the first part of this course instruction is given by lectures and recitations in the following subjects: plotting of functions, interpolation, the straight line, the conic sections, curves represented by various equations of common occurrence in engineering, graphic solution of equations, determination of laws from the data of experiments, simplification of formulas. The plotting and analysis of charts in order to determine empirical formulas is an important part of the course.

The latter part of this course is devoted to lectures and recitations in the following subjects: rate of change, differentiation, maximum and minimum, integration, definite integrals, with application to the determination of area, volume, center of gravity, and moment of inertia. Problems are assigned to illustrate the use of all formulas studied in class.

Text: Frye's Graphical Mathematics.  
Passano's Calculus and Graphs.

### 2. *Aeronautical Laboratory.*

The first part of the course consists of preliminary experiments on calibration of gages and laboratory exercises devoted to various aeronautical and meteorological instruments such as transients in mechanical systems, mechanical vibrations, magnetic compasses, gyroscopic instruments, barometric altimeters, rate of climb meters, recording thermometers, and humidity instruments. Airplane engines are taken apart and assembled in order to gain a knowledge of the construction and principles of mechanisms involved in their operation.

The second part of the course is devoted to work on such airplane engines as a Pratt and Whitney Wasp 450 H.P. engine consisting of nine radial cylinders, a Curtis airplane engine, and other types. Various kinds of magnetos, carburetors, tachometers, etc., are studied and discussed.

### 3. *Air Conditioning, Advanced.*

This course will cover the following topics which will be applied to industrial plants, theatres, railroads, office buildings and hospitals: Regulations covering summer air conditioning; calculation of heat gains for different buildings for use in design of cooling systems; rules governing calculation of sun heat gain; ventilation requirement for all types of buildings and applications; different types of fans; fundamentals of refrigeration; types of refrigerant; different applications of cooling, using refrigeration and well water; winter air conditioning and various methods of control; visits to nearby installations.

### 4. *Air Conditioning Design.*

A residence will be taken as a class problem for air conditioning and a complete system will be designed for this building. A layout of piping and duct system will be made, together with complete calculations and estimation of cost. Several residences will be visited so that the practical problems of design will also be understood. The ventilation of an industrial plant will be taken as a problem and a completed system of both supply and exhaust will be designed. All equipment for the systems will be selected and thoroughly discussed in class.

#### 5. *Air Conditioning Design, Advanced.*

This course will design complete all year air conditioning systems for an industrial plant, office building, and large store. A certain building of any type will be given a student to survey and he will design a complete air conditioning system, using all his own original data. All new developments will be discussed and the advantages and disadvantage of them studied.

#### 6. *Air Conditioning Laboratory.*

This course consists of a series of tests on various types of air conditioning and heating apparatus. Among the pieces of apparatus tested are the following: air blower; unit heater; carrier air conditioner, provided for humidification or dehumidification; hot air furnace equipped with oil burner, humidifier, blower, and air filters; and also automatic controls and a special insulated constant temperature room for the study of problems in heating and air conditioning.

Experiments are made on various types of refrigeration and cooling apparatus. The refrigeration equipment consists of compression and absorption types and includes small commercial and domestic units. A constant temperature room is used in testing the units. Insulation tests are also included in this course.

#### 7. *Aircraft Engine Design.*

This course covers the design of airplane engines involving the thermodynamic principles as well as the stresses in the crankshaft, connecting rods, cylinders, springs, and other parts of the engine.

#### 8. *Airplane and Its Engine, The.*

This is a foundation course covering the technical aspects of the airplane, airplane engines, and aerial navigation. Subject matter includes theory of flight, airplane construction, performance, internal combustion engines, airplane engine construction and types, propellers, instruments, and airplane types. Also covered briefly are elementary meteorology and navigation. This course is designed not only as an introduction to aeronautics for the engineering student, but also to provide the student pilot an inclusive course in preparation for governmental examinations.

#### 9. *Airplane Design.*

An advanced course in aerodynamics as applied to airplane design. The student will begin with specifications for an airplane and plan a complete layout, including performance calculations and stress analysis. Applied Mechanics and General Aeronautics are prerequisite to this course.

#### 10. *Airplane Engine Design, Advanced.*

This is a continuation of Course 9 and comprises similar problems, but with different specifications.

#### 11. *Applied Mechanics. (Prerequisite, Physics)*

A course of lectures and recitations comprising a study of the general methods and application of statistics to structures in equilibrium, including collinear, concurrent, parallel, and nonconcurrent force systems in a plane and in space; centroids and moment of inertia. Considerable time is devoted to tension and compression in frames, the computations of the reactions, the method of joints, and the manner of distinguishing members containing bending stresses. Vector diagrams are drawn to show the principles of graphical methods. Problems are used and assigned continuously to illustrate the underlying facts of the subject.

Text: Brown's Applied Mechanics.

### 12. *Architectural Design. (Prerequisite, Architectural Drawing)*

Elementary course intending to familiarize the student with the Orders of Architecture, that he may learn to distinguish the best proportions of the various styles of design, and develop his taste for the best work. An analytique problem of a classic doorway is drawn and rendered, as well as original designs embracing various architectural problems, chosen to stimulate the student's knowledge and imagination in applying the fundamentals. In connection with this course the instructor will outline a course of reading in Architectural History supplemented with lectures on the subject.

Text: Turner's Fundamentals of Architectural Design.  
Hamlin's History of Architecture.

### 13. *Architectural Design, Advanced. (Prerequisite, Architectural Design)*

The design of various architectural problems of a more elaborate and complicated nature than Architectural Design. Plans, elevations, and sections will be drawn and rendered in wash. A Gothic window is analyzed and drawn at large scale. The Architectural History readings are continued as in Architectural Design.

Text: Turner's Fundamentals of Architectural Design.  
Hamlin's History of Architecture.

### 14. *Architectural Drawing. (Prerequisite, Engineering Drawing)*

This course deals with the fundamentals of masonry construction. Plans, elevations and sections of a small school building of second-class construction are drawn and traced, special emphasis being laid upon the technique of the work, in anticipation of the student obtaining a position in an Architect's office during the day. Proper sizes of doors and windows are studied, as well as the lay-out of stairs, the construction of cornices, etc., and electric and heating layouts.

### 15. *Business and Industrial Management.*

An introductory survey of the whole field of business and industrial administration with special emphasis upon training the student in the analysis of business and industrial problems. The functions of business and industrial administrators are discussed with particular reference to the control policies and devices of the manager. The course presents the problems of business and industrial administration as an interrelated whole and helps the student to see the lines of study which lead to solution of these problems.

### 16. *Chemistry, Analytical. (Prerequisite, Inorganic Chemistry)*

Qualitative Analysis — Lectures and Laboratory — First Semester.

Lectures and recitations are carefully co-ordinated with laboratory work. Not only is the detection of the common cations and anions considered but also the theoretical principles relating to hydrolysis, solubility product, ionic equilibrium, amphoteric substances, complex formations, oxidation and reduction, correct concentrations, etc. Sequentially related experiments which may be combined into a complete system of analysis are performed. From time to time unknown solutions and substances are given the student, the analysis of which emphasizes the very practical side of the work.

Quantitative Analysis — Lectures and Laboratory — Second Semester.

The major operations of quantitative analysis, such as weighing, measurements of volumes, titration, filtration, ignition, and combustion are considered both from the theoretical and the manipulative aspects.

Typical analyses and common technical methods are discussed critically, and unknown solutions and substances, the analysis of which involves volumetric analysis, including acidimetry and alkalimetry, oxidation and reduction, and precipitation methods, are performed.



Each analysis requires correct calculation as well as careful analytical procedure. For this reason quantitative calculations are studied through the medium of representative problems.

17. *Chemistry, Industrial Lectures and Laboratory.* (Prerequisite, *Inorganic Chemistry*)

*Lectures.*

The lecture work in this course is designed to acquaint the student with the technology of the chemical industries. The material is presented in the light of present-day understanding of unit operations and unit processes and thus gives the student an up-to-date survey of the field of the industrial chemist.

In addition to the study of the acid heavy and basic heavy chemicals such as salt, sulfuric acid, nitric acid, soda ash, caustic soda, and chlorine, the course also includes an introduction to the chemical technology of such industries as rubber, paper, dyes, explosives, solvents, petroleum, soap, etc. The course content can be adjusted to meet the needs of the students in the class.

*Laboratory.*

The laboratory work supplements the lectures and acquaints the student with the plant processes used in the chemical industries.

The experiments are first carried out in test tubes and then on a much larger scale. In carrying out these chemical processes in the laboratory, the student controls the operation through the analysis of the products formed and thus becomes acquainted with the technical methods of analysis used in control laboratories.

This method is extremely valuable to men who are contemplating a career in any of the chemical industries. This is true regardless of the nature of his work, whether it be laboratory, plant, office, or sales work.

18. *Chemistry, Inorganic, Lectures and Laboratory.* (Prerequisite, *Elementary Chemistry, Engineering Mathematics*) It is also recommended that students have completed a course in high school Physics.

This course builds on the foundation laid by the student in his previous study of Elementary Chemistry and allied subjects. It aims to develop in the student an understanding of numerous laws, principles, facts of Chemistry, and to provide him with the preparation necessary for successful pursuit of more specialized work to which he may be looking ahead. The course should prove of value to those at present engaged in the field of Chemistry and to those who plan to enter that field. The work of the course embraces general class sessions, or "lectures", and separate laboratory periods.

In the lectures, the instruction is accompanied by appropriate demonstration experiments; adequate time is devoted to the solution of numerical problems that illustrate chemical principles and their application; students' difficulties are discussed; quizzes and longer tests are held at the discretion of the instructor.

During laboratory periods, students work out under supervision a variety of experiments involving procedures both of a qualitative and of a quantitative nature which are planned to illustrate important principles or facts; desirable laboratory methods are emphasized; principles and results are discussed. The student is required to make approved records of experiments.

19. *Chemistry, Organic, Lectures and Laboratory.* (Prerequisite, *Inorganic Chemistry*)

*Lectures.*

In this course the student obtains a thorough foundation in the principles and theories of organic chemistry. These are presented in a manner that emphasizes the relationships existing among the various classes of organic compounds. The practical nature of the subject is stressed by familiarizing the student with the industrial applications of these theories and principles to such industries as: petroleum, rubber, dyes, explosives, drugs, etc.



### *Laboratory.*

The carefully selected preparations serve to give the student concrete evidence of the validity of the theories and principles of organic chemistry. They also help in developing the laboratory technique necessary in such manipulations as fractional distillation, physical and chemical separations, extractions, crystallizations, steam distillations, etc.

The fundamental types of chemical changes considered here are esterification, saponification, sulfonation, nitration, reductions, diazotizations, and condensation.

### 20. *Concrete. (Prerequisite, Applied Mechanics)*

A consideration of the theoretical and practical principles involved in the design of concrete and reinforced concrete structures. The following subjects are thoroughly discussed; the design and capacity of existing single reinforced rectangular beams, double reinforced rectangular beams, and "T" beams; the fundamental principles underlying diagonal tension and bond stress; column design and methods of determining stresses in existing columns; the origin of curves and tables and their uses. Problems involving the above types of sections, first by the transformed area method and later by curves and tables, are done by the students.

Text: Dean Peabody's Concrete.

### 21. *Concrete Design.*

This course will consist of the design of a cantilever retaining wall, retaining wall with counterfortes, a typical bay of a reinforced concrete building, footing design, and a reinforced concrete bridge. This course will also include a detail discussion of the Hardy Cross method of moment distribution, column analogy, and a comparative discussion of stress analysis in rigid frames.

### 22. *Electricity I.*

A course of lectures and problems designed to give the student the necessary concept and understanding of the elements of electricity to enable him to comprehend the courses to follow in direct and alternating current machinery and circuits.

In the second semester lectures and problems covering the characteristics, losses, efficiencies, and operation of direct current machinery.

(This course is coordinated with appropriate laboratory work. Course 25.)

### 23. *Electricity II.*

A course of lectures and problems dealing with alternating current circuits both single and polyphase involving the use of complex algebra.

In the second semester lectures and problems covering the construction, theory, characteristics and testing of the various types of alternating current machinery.

(This course is coordinated with appropriate laboratory work. Course 26.)

### 24. *Electricity III.*

A course of lectures and problems dealing with the transmission and distribution of electric power by means of direct and alternating current. A complete study of the application of the various types of electrical machinery to industry.

In the second semester lectures and problems covering the principles, characteristics, and applications of electronic tubes to industrial and commercial processes.

(This course is coordinated with appropriate laboratory work. Course 27.)

### 25. *Electrical Laboratory I. (Prerequisite, Physics)*

During the first semester this course covers thoroughly by experiment the fundamental principles and practical applications of Ohm's Law as it applies to series, parallel and series parallel circuits; Kirchoff's Law applied to networks, Direct Current Voltmeter, ammeter, millivoltmeter and shunts, and watt-hour meter.

During the second semester the student is given experimental work in Magnetic Circuits as found in everyday use such as circuit breakers overload and low voltage relays and coils. Brake magnets and ignition coils. Motor and generator field circuits.

Electrostatic Capacity as applied to Direct Current work only.

Construction and operation of D.C. Motors and Generators beginning with armature and field resistance measurement, and finishing with experimental proof of the fundamental laws of motor and generator operation.

Parallel operation of shunt and compound generators. Shunt, series and compound motor characteristics; Heat Run on D.C. Generator; Efficiency by stray power method, electrical supply of losses, separation of losses by the Retardation Method. Characteristics of Vacuum Tubes.

### 26. *Electrical Laboratory II. (Prerequisite Electrical Laboratory)*

The course begins by a thorough study of the construction and operation of A.C. instruments with particular attention to the single phase wattmeter and the polyphase wattmeter.

The A.C. Circuits, both series and parallel, containing resistance, inductance, and capacity, are carefully studied and analyzed by vector and complex calculations; Transformer Efficiency and Regulation; Transformer Heat Run; Constant Current Transformers and Three-Phase Transformer connections. Parallel operation of single phase transformers; Polyphase transformers. Voltage regulation and efficiency of alternators; operation of alternators in parallel.

### 27. *Electrical Laboratory III. (Prerequisite, Electrical Laboratory I and II)*

Experiments of the general type of those listed below will be performed and suitable reports written to give a thorough study of the results obtained in the laboratory.

V-curves and efficiency of synchronous motor; load test on a six-phase synchronous converter; load tests on polyphase and single phase of induction motors; load tests on a Fynn Weichsel motor; speed control of induction motors; demonstration of high voltage testing, Mercury Arc Rectifier Characteristics.

The last few weeks of the course are devoted to original research in the field in which each student is interested.

### 28. *Engineering Drawing.*

This course is planned to meet the requirements of a class composed of students who have had no previous instruction in drafting, and also for those who may have had one or two years' work in preparatory schools.

Instruction is given in the testing, use and care of the instruments and drawing supplies, and about thirty drawing plates are made. The topics studied in these plates include: technique practice, lettering, geometric construction, orthographic projections, auxiliary views, revolution of objects, isometric, cavalier, cabinet and perspective projection, intersections, sections, helix and application, screw threads, dimensioning and inking. A number of practical problems, pertaining to the professional courses to be taken, in which drawing is the application, are also given.

These give the student a thorough training in the fundamental principles of mechanical drawing, so that he may easily do the drafting required in his professional course. A short lecture will be given at the opening of each class based on the work at hand, and individual instruction is given during the remainder of the class period.

For those who have had some experience in Mechanical Drawing, a special course is devised which will take care of individual needs and offer students more advanced work.

### 29. *Engineering Laboratory.*

This course includes a series of experiments upon various kinds of equipment used in modern power plants to demonstrate under actual conditions the principles developed in the Heat Engineering course. The students apply in the laboratory the knowledge they have acquired in the classroom to actual tests on different apparatus. A complete report of the experiment is made for each test performed.

The following list is illustrative of the type of equipment tested during the course: Gage calibration, slide valve setting, steam calorimeter tests, steam engine test, gasoline engine test, air compressor, triplex power pump, steam injector, Warren steam pump, two-stage centrifugal pump, Pelton water wheel, Diesel engine, Curtis steam turbine.

### 30. *Engineering Mathematics. (Prerequisite. First courses in Algebra and Plane Geometry)*

Although the primary purpose of this course is to lay a thorough ground work for Analytical Geometry, Calculus, and Applied Mechanics, it should be understood that the course is a complete unit in itself, enabling the student to handle a considerable proportion of the practical problems arising in engineering practice.

For the sake of a common ground work, a rapid review of the fundamental concepts, processes, theorems, and axioms, is given followed by factoring to quadratics, rectangular coordinates and graphs, radical equations, theory of equations, the binomial theorem and logarithms.

Approximately one-third of the course is devoted to the study of Plane Trigonometry and some of its practical applications. This part includes the solution of right triangles; solution of oblique triangles by the law of sines, cosines, tangents and half angle formulas, radians, trigonometric ratios, identities, and equations.

Instruction, including problems and exercises, is also given in the theory and use of the slide rule.

### 31. *Engineering Structures. (Prerequisite, Strength of Materials)*

First term is an introductory course covering outer forces, reactions, moments and shears for fixed and moving loads. The use of influence lines, the stress analysis of composite beams, torsion in rivets, three-moment equations, design of a deck plate girder bridge, and through plate girder bridge. Each student must design a deck plate girder bridge.

Second term deals with the computation of stresses of various trusses by the moving up load method and equivalent uniform live load method. Stresses in portals; slope deflection method and Hardy Cross method stress distribution in rigid frames.

Text: Sutherland and Bowman "Structural Theory."

### 32. *Heat Engineering. (Prerequisite, Physics)*

In order to understand clearly the operation of the modern power plant, the theoretical principles involved must first be studied. This course, therefore, includes both the theoretical and the practical applications of the theory of heat. In the first semester the laws of the perfect gases and of the vapors, properties of steam, the use of the steam tables and the Mollier diagram are carefully discussed. A description is given of the many different kinds of apparatus used in the power plant such as steam boilers, engines, turbines, and auxiliary equipment including pumps, condensers, heaters, fans, etc., which

are used in connection with the operation of a power plant. A large number of problems are solved during the course.

The aim of the course is to familiarize the student with the theory and application of prime movers that have fuel as a basis for the generation of power.

### 33. *Heating and Air Conditioning.*

This course consists of lectures and simple class demonstrations.

The first term covers the fundamental principles involved in heating and air conditioning. This includes the study of the properties of air, the psychrometric chart and tables, the law of partial pressures, methods of measuring temperature, humidity and air velocities, conductivity of various building materials, properties of different types of insulation and methods of figuring heat losses for all types of building.

Numerous problems are given covering all the various phases discussed in class.

The second term covers the heating and air conditioning of residences with the following various types of system: warm air (gravity and forced), steam (pressure, vapor, vacuum), hot water (gravity and forced circulation), split system and dual system. The advantages and disadvantages of the different systems are discussed together with the cost of installing the systems.

A typical residence is used for class study, and the heating of this house is discussed using the several types of systems. The controls for all types of heating systems are explained, and also the different types of furnaces, boilers, oil burners, gas burners and stokers.

### 34. *Highway Engineering.*

An outline of the principles governing the finance of highway projects and assessments of street construction. Thorough discussion of the survey for a highway project. Lectures on the fundamental principles of highway design; namely, roadway, alignment, safety devices and accessories. Various present-day road surfaces are discussed. A study of the fundamental principles of soil mechanics as it relates to Highway design.

### 35. *Hydraulics. (Prerequisite, Applied Mechanics)*

This course is a study of the principles of both hydrostatics and hydrodynamics. The subjects considered are: the pressure on submerged areas together with their points of application; the laws governing the flow of fluids through orifices, short tubes, nozzles, weirs, pipe lines, and open channels.

Text: Russell's Textbook on Hydraulics.

### 36. *Machine Design. (Prerequisite, Mechanism and Machine Design)*

This course applies to more complicated machines, the principles presented in Course 39. Typical problems presented for design are the horizontal return tubular boiler, triplex power pump, and power shearing machine for steel bars.

Minimum sizes of the various parts are calculated and an assembly of the complete machine is drawn and traced. All calculations are carefully presented in notebook form.

Text: Haven & Swett — Design of Steam Boilers and Pressure Vessels.

Reference: Mark's — Mechanical Engineer's Handbook.

### 37. *Machine Drawing. (Prerequisite, Engineering Drawing)*

This course is taught on a problem basis with the student working out problems under the supervision of the instructor. The lectures and reading assignments correlate with the class problems. Short quizzes are given to cover the reading assignments. The principles covered include preliminary machine sketches, detailing from machines and from assembly drawings, dimensioning



with reference to basic size system, sectioning and the making of assembly drawings from details, and also problems in cam construction.

The lectures and assigned readings take up such topics as fastenings, machine elements, methods of manufacture, jigs and fixtures, methods of reproducing drawings and those drawing techniques that are to be applied to the particular problem being done.

Text: Tozer & Rising — Machine Drawing.

### 38. *Materials of Construction and Foundations.*

(a) Materials of Construction. A detailed study is made of the methods of manufacturing, properties, and uses of materials used in engineering work, such as iron, steel, lime, cement, concrete, brick, wood, and stone.

A study is also made of the methods of testing and the strength of various materials used by the engineer.

Text: Pulver's Materials of Construction.

(b) Foundations. This course is designed to give the student a clear, concise survey of the properties and characteristics of the common types of foundation structures in use. The subjects treated are timber and concrete piles; sheet piles of wood, steel, and concrete; cofferdams; caissons of the pneumatic box and open types; open wells, bridge piers and abutments.

Each student must write a report on simple cements, complex cements, concrete, steel, timber, piles, cofferdams, and caissons.

### 39. *Mechanism and Machine Design. (Prerequisite, Machine Drawing)*

The object of the first part of this course is to acquaint the student with the principles of mechanism which are met in practice and in machine design. The topics considered are belting, pulley, and gear train calculations, both simple and epicyclic, cam design and theoretical design of gear-tooth shapes. The instant center calculations and velocity diagram plots or common linkages are studied.

In the second part of the course the principles of mechanics and strength of materials, learned in earlier courses, are applied in the design of simple machines. Typical machines designed are the lathe arbor press and hydraulic flanging press. The problems are approached on a practical basis and good design practice is followed as far as possible. Calculations of size of various parts are made and submitted, together with an assembly drawing of the machine studied.

Text: Elements of Mechanism — Schwamb, Merrill & James.

Reference: Mark's — Mechanical Engineer's Handbook.

### 40. *Physics.*

A course covering the fundamental principles of mechanics, heat, light, sound and electricity. The lectures are illustrated both by demonstration with apparatus and by stereopticon. Each lecture period is supplemented with a problem period in which the student learns the practical application of the laws of physics. Some of the topics taken up in mechanics are equilibrium, center of gravity, accelerated motion, work, energy, machines, and fluid pressure. The part of the course on heat includes: expansion of solids, liquids, and gases, calorimetry and mechanical equivalent of heat. The course also covers the fundamental properties of light and sound, and the elements of electricity. Practical problems covering each phase of the work are assigned to fix in the mind of the student the principles taken up in the lecture period.

Text: Frye and Hodgdon's Practical Physics.

### 41. *Strength of Materials. (Prerequisite, Applied Mechanics)*

#### Strength I.

This course comprises the study of the strength of structural shapes in tension, compression, and bending. The subjects covered are the stresses and strains in bodies subjected to tension, compression, and shearing; common theory of



beams with thorough description of the distribution of stresses, shearing forces, and bending moments; and deflection of beams.

#### Strength II.

This is a continuation of Strength of Materials I in which a study is made of the strength of shafting and springs; combined stresses in beams subjected to tension, compression, and bending; also strength of riveted joints, columns, and thin hollow cylinders, and brief consideration of strains and the relation of the stresses on different planes in a body.

#### 42. *Structural Design. (Prerequisite, Structural Drawing)*

This course consists of a study of the design of such structural units as steel beams, girders, columns, trusses, riveted connections and steel frames as a whole. Particular attention is given to the practical phase of construction and their relation to design. The design of structural timber is also studied. In the first half of the year the student is given many problems which he works out at home and in class and the last half of the year is usually devoted to the design and detailing of some larger, more complicated structures or portions of structures.

#### 43. *Structural Design, Advanced.*

This is a continuation of Course 42 in Structural Design and consists largely of class problems of a more complicated nature. In recent years such structures as elevated water tanks, mill building frames, and portions of an office building frame have been designed in class. Considerable stress is laid on the practical phases of construction as well as design requirements.

#### 44. *Structural Drawing. (Prerequisite, Engineering Drawing)*

The course in Structural Drawing consists of making shop drawings of the various members of modern steel frames. After making drawings of structural sections and standard connections, the student is given data from which he makes framing plans and shop details. The problems usually covered are: portions of a steel frame building, a bridge girder, and a roof truss.

#### 45. *Surveying. (Prerequisite, Engineering Mathematics)*

(a) A course of lectures, which treats the basic principles such as: taping, compass, theory and use of the transit as applied to both random and closed traverses, differential leveling, profile leveling, and double rodged leveling. The D.M.D. and rectangular coordinate methods (of computing, plotting and running traverses) are stressed and especially as they may apply to such work, or procedure as outlined by the Massachusetts Land Court.

(b) A continuation of Surveying (a), consisting of lectures and problems on Stadia surveying, the theory and use of the plane table, plane, triangulation simple curves (railroad curves and circular arcs), vertical curves, compound curves, and elementary earthwork problems.





# THE LINCOLN SCHOOLS

## EVENING SESSIONS

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### LINCOLN TECHNICAL INSTITUTE

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AERONAUTICAL ENGINEERING  
AIR CONDITIONING ENGINEERING  
ARCHITECTURAL ENGINEERING  
CHEMISTRY

CIVIL ENGINEERING  
ELECTRICAL ENGINEERING  
MECHANICAL ENGINEERING  
STRUCTURAL ENGINEERING

### DEGREE PROGRAMS

A six-year program conducted in conjunction with Northeastern University School of Business is available which leads to the degree of B.B.A. in Engineering and Management awarded by Northeastern University.

### SPECIAL COURSES

The following special courses are offered:

ARTIFICIAL LIGHT AND ITS APPLICATIONS  
ASTRONOMY  
BLUE PRINT READING AND ESTIMATING  
ELECTRONICS  
HEATING AND AIR CONDITIONING  
REFRIGERATION  
SUB-FRESHMAN COURSE  
THE AIRPLANE AND ITS ENGINE

Students may register for a complete curriculum or for individual courses.

### LINCOLN PREPARATORY SCHOOL

Fully accredited by the New England College Entrance Certificate Board. General, Classical, and Technical high school courses are available.

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**THE LINCOLN SCHOOLS**  
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ENTRANCE CERTIFICATE BOARD

EVENING SESSIONS

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THE FORTY-SECOND YEAR



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- (b) Courses preparing students for recommendation for entrance by certificate (without examination) to those colleges that admit by the certification method.
- (c) Courses preparing students to enter those colleges that require high school graduation as an entrance requirement.

#### FOR HOSPITALS

- (a) A high school course which prepares students to enter upon a training program in accredited hospitals.
- (b) Courses which prepare graduate nurses who are not high school graduates to fit themselves for graduate study, and for teaching and administrative positions in hospitals.

#### FOR PROFESSIONAL SCHOOLS

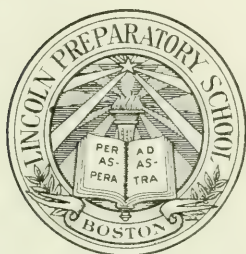
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**Chemistry Laboratory**

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*Assistant Principal*

## FACULTY

WALTER ALFRED BALDWIN

Appointed 1910

A.B. Ohio Wesleyan University, 1906; graduate study University of Chicago and Harvard University; Head, Department of Mathematics, Chillicothe High School, Ohio, 1906-08; Head, Department of Mathematics, Mansfield High School, Ohio, 1908-10; Head, Science Department, Huntington School for Boys, Boston, 1912-14; Instructor in Physics and Chemistry, Lincoln Preparatory School, 1910-.

*Physics and Chemistry*

WILLIAM TILDEN BENTLEY

Appointed 1916

A.B. Harvard University, 1907; Sub-Master, Malden High School, 1914-24; Belmont School, 1924-29; Principal, Charles A. Daniels School, 1929-.

*English*

CHARLES LEE CHEETHAM

Appointed 1928

A.B. Bates College, 1911; A.M. Columbia University, 1927; Instructor in Mathematics, Portsmouth High School, New Hampshire, 1912-14; Submaster, Westerly High School, Rhode Island, 1915-17; Instructor in Mathematics and Science, Tower Hill School, Wilmington, Delaware, 1919-23; Instructor in Mathematics and Physics, Roger Ascham School, White Plains, New York, 1923-27; Instructor in Science, Mathematics and Physics, Public Latin School, Boston, 1928-.

*Physics*

DANA MESERVE COTTON

Appointed 1936

A.B. University of New Hampshire; graduate study Oxford University, Columbia University and Harvard University; Submaster Brunswick High School, Maine, 1930-33; Head of Department of Social Studies, 1930-33; Instructor in Social Studies, Winchester High School, Mass., 1935-38; Director of Guidance, 1938-.

*History*

PRESTON HARVEY

Appointed 1933

A.B. Bowdoin College, 1928; Instructor in Latin and History, Portland Country Day School, 1928-31; Head of Latin Department, Huntington School, 1932-.

*Latin and History*

PERCY EDWARD JONES

Appointed 1923

Sloyd Training School, 1920; B.S. Boston University, 1930; Instructor in Mathematics and Drawing, Huntington School for Boys, 1919-.

*Mathematics*

ALFRED BLANCHARD KERSHAW

Appointed 1928

A.B. Amherst, 1904; A.M. Amherst, 1907; Instructor, The Allen School, West Newton, 1908-09; Instructor in English, Brockton High School, 1909-11; Submaster, English High School, Boston, 1911-.

*English*



## LINCOLN PREPARATORY SCHOOL

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STANLEY D. MIROYIANNIS

Appointed 1936

B.S. Northwest College, 1927; A.M. Massachusetts State College, 1928; Ph.D., Boston University, 1936; Instructor in Biology, Boston University, 1933-36; Head of Department of Biology, Northeastern University, 1936-.

*Biology*

JAMES HARRIS MORSS

Appointed 1927

A.B. Boston University, 1903; Ed.M. Harvard University, 1927; Instructor in Huntington School for Boys, Boston, 1915-.

*English*

THEODORE WOODS NOON

Appointed 1922

A.B. Yale College, 1896; M.A. Yale University, 1898; Exhibitioner, Emmanuel College, University of Cambridge, England, 1906-07; Master, Lawrenceville School, Lawrenceville, New Jersey, 1908-18; B.D. University of Chicago, 1913; S.T.M. Boston University, 1922; Ed.M. Harvard University, 1924; Instructor in Lincoln Preparatory School and Huntington School for Boys, Boston, 1922-.

*Latin and Ancient History*

DEANE STANFIELD PEACOCK

Appointed 1931

A.B. Bowdoin College, 1917; A.M. Bates College, 1927; Ed.M. Harvard University, 1932; Principal, Oakland High School, Maine, 1919-24; Principal, Freeport High School, Maine, 1924-31; Junior Master, English High School, Boston, 1932-.

*English*

FRED PARKER HAMILTON PIKE

Appointed 1921

A.B. Colby, 1898; graduate study Johns Hopkins University, 1903-05; Instructor in Modern Languages in private preparatory schools, 1899-1908; Instructor in French, Public Latin School, Boston, 1909-.

*French and German*

CHARLES FREEMAN SEAVERNS

Appointed 1914

Harvard University, 1915-17; Instructor in Mathematics and Drawing, Huntington School for Boys, Boston, 1914-19; Instructor, Everett High School, 1925-.

*Mathematics and Mechanical Drawing*

ALBERT SHEPARD

Appointed 1938

A.B. Harvard University, 1913; A.M. Harvard University 1914; Ph.D. Harvard University, 1916; University of Chile, 1916-17; Akron University, 1917-18; Norwich University, 1918-20; Albany Boys' Academy, 1920-22; University of North Carolina, 1922-26; Belmont Hill School, 1926-35; Tilton School, 1936-37; Brookline High School, 1937-.

ALFRED LORING SKINNER

Appointed 1927

A.B. Harvard University, 1919; Instructor in Mathematics, North Andover, Mass., 1919-22; Instructor in Mathematics, Huntington School for Boys, Boston, 1922-.

*Mathematics*

**JOHN MOORE TROUT, JR.**

Appointed 1936

A.B. Princeton University, 1928; Ed.M. Harvard University, 1932; Instructor at Huntington School for Boys, 1928-.

*French***DANIEL P. A. WILLARD**

Appointed 1925

B.S. University of New Hampshire, 1913; Principal, Edgartown High School, Mass., 1913-14; Submaster, Braintree High School, Mass., 1915-16; Instructor in Social Sciences Newton High School, Mass., 1916-.

*Social Sciences*

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**EDNA M. EDISON, Secretary****HELEN E. HILDRETH, Bookkeeper****HAWTHORNE P. SUMMERS, Recorder**

## THE LINCOLN SCHOOLS

The Lincoln Schools, conducted by and affiliated with Northeastern University, include the Lincoln Technical Institute and the Lincoln Preparatory School. These Schools offer the non-degree-granting work conducted by Northeastern University. In the Lincoln Technical Institute the work, however, carries credit towards the Title of Associate in Engineering and is acceptable also towards the degree of B.B.A. in Engineering and Management offered by Northeastern University School of Business.

All classes in the Lincoln Schools are held in the evening and are especially designed to meet the needs of those who are employed during the day.

The first of the Lincoln Schools to be established was the Lincoln Preparatory School, known for many years as the Northeastern Preparatory School. This School had its real beginning in 1897 in the single courses offered in History, Science, and other subjects of a cultural nature, and in certain trade courses intended to benefit men engaged in various occupations.

Gradually the trade courses were discontinued and the remaining subjects were welded into a regular high school program, upon the completion of which a standard high school diploma was awarded.

The primary purpose of the School has been effective preparation of students for college entrance. For this reason constant attention has been paid through the years to the maintenance and improvement of standards.

In 1925 women were admitted to classes on the same basis as men. Since 1924 the School has been accredited by the New England College Entrance Certificate Board, a marked distinction in the case of an evening school, and an expression of confidence that day school standards are maintained. The school today offers curricula in the general, scientific, and classical fields. The enrollment has increased from fewer than fifty students to almost five hundred, of whom one-fifth are women. The faculty has been increased until it now numbers from twenty-five to thirty men of wide experience and training, drawn from the leading day preparatory and high schools of Metropolitan Boston.

Next in point of view of time was the Lincoln Technical Institute, which had its origin in the Evening Polytechnic School. The latter received its title in 1901, when the work of various technical departments, such as the Department of Steam Engineering, the Department of Art, the Automotive School and the

Department of Naval Architecture, were grouped together into curricula. By 1904 we find the School offering definite curricula, generally of three years' duration, in Architecture, Chemistry, Marine Engineering, Structural Engineering, Steam Engineering, along with courses in Art, Navigation, Surveying, Seamanship, and other related fields. In 1925 the title Lincoln Institute was given to the Northeastern Evening Polytechnic School. At this time the Lincoln Institute remodeled, lengthened, and consequently improved the former courses, offering four-year curricula in Architecture, Chemistry, Civil Engineering, Electrical Engineering, Mechanical Engineering and Structural Engineering.

Since then, additional curricula have been added; namely, Aeronautical Engineering and Air Conditioning Engineering as options in Mechanical Engineering.

In addition, provision was made so that students need not pursue a complete curriculum but could elect individual courses related to their present occupations, the only prerequisite of entry being ability to pursue the course with profit to themselves. At the present time there are five hundred students receiving instruction in the Lincoln Technical Institute in the various branches of engineering.

Since 1936 the curricular courses of the Institute have been credited by Northeastern University School of Business towards the Degree of Bachelor of Business Administration in Engineering and Management offered by that school.

Effective 1939 the Executive Council of Northeastern University authorized the Lincoln Technical Institute to award the Title of Associate in Engineering to those who satisfactorily complete the prescribed curriculum.

The Officers of Administration are constantly alert to changing conditions and from time to time will modify existing courses to meet new needs and develop new courses so that real educational opportunities will be available to employed men and women at convenient evening hours. In particular they are sincerely interested in the problems of each student and are available for vocational and educational guidance. Through the Lincoln Schools many men and women have been able to solve their problems and to secure that education which has enabled them to succeed in the work for which they are adapted by ability and interest. Without the facilities of the Lincoln Schools many of these alumni would still be occupying minor positions with little opportunity for advancement on account of lack of training.

## THE INTEREST IN EDUCATION

The following items show the growth of our school population and the increasing interest in education at all age levels. They are the most recent figures available and are issued by the Office of Education, United States Department of Education.

30,550,000  
Number of students in all full-time schools and colleges.

23,570,000 or 77.5% are in elementary schools.

5,590,000 or 18.8% in high schools.

1,150,000 or 3.7% in colleges.

In other words, 22.5 per cent of our total school population is in high school or college.

Population between ages 20-40	41,123,282
Number of high school graduates	12,254,994
Number of college graduates	2,209,960
High school graduates between 20-40	29.8%
College graduates between 20-40	5.3%

Out of every one hundred persons between the ages of twenty and forty, thirty are high school graduates and five are college graduates. This means that if a man is not a high school graduate and is now competing with *only three other men* for a position, one of those men at least is superior in formal educational qualifications.

## EVENING EDUCATION AVAILABLE

The significance of the facts given above cannot be ignored. They imply that every person who does not have a high school education should take immediate steps to obtain one. While competition for the better jobs is already severe, it will be even more severe in the future.

Prior to 1905 only 10 per cent of the people of high school age were enrolled in high schools. It is estimated that in 1935 there were 7,000,000 or 70.4 per cent of people of high school age enrolled in the secondary schools.



There seems little doubt that education is valuable. The most recent survey made in the State of Massachusetts has indicated beyond any doubt the value of a high school education, especially in the case of the most recent graduates. It is further indicated that employers are seeking at least the equivalency of a high school education as a minimum qualification in all prospective employees.

For those whose high school education was disrupted for financial reasons or other factors beyond their control, it is pleasing to know that evening educational opportunities are now available and that it is possible for ambitious men or women to obtain a high school education at convenient evening hours. Moreover, this high school education will open to them the opportunity of meeting the minimum qualifications for entering upon the study of Engineering, Business, or for the pursuit of a liberal education. Classes in all these fields are now offered at convenient evening hours. However, even if one is not disposed to continue his studies in the professional field, it is almost imperative that immediate steps be taken at least to complete an education to the limits of formal high school training.

## THE LINCOLN PREPARATORY SCHOOL

### CHARACTERISTICS OF THE SCHOOL

Before a prospective student makes a final decision regarding the evening school he wishes to enter, he should ascertain some of the characteristics of a good preparatory school. Following are the outstanding characteristics of the Lincoln Preparatory School:

1. It is non-proprietary, and organized exclusively for service to students, the income being devoted to that end, rather than being organized for profit.
2. Adequate fees are charged to insure the employment of the best teachers attainable and to provide constant improvement in the educational processes.
3. Scholarship funds are available to assist deserving and needy students who cannot meet the fees that must be charged if high standards are to be maintained.
4. It has a trained and experienced faculty; that is, the men who form its staff are teachers of experience, familiar with college entrance requirements, with long practice in dealing with the individual problems of students.
5. All work is conducted on a regular classroom basis to meet the approval of higher institutions and the New England College Entrance Certificate Board requirements.
6. The size of the classes is such as to permit reasonably individualized attention.
7. The courses are conducted so that the content of each course is thoroughly covered in order that it may be of the maximum value to the student, not only in the interests of his personal growth, but as preparation for further study.
8. The student body is adequately prepared for the type of instruction which is to be imparted in the classroom. The level of achievement is not lowered by the admission of unfit students.
9. High quality of performance is maintained in the classroom, and students bring to bear on their studies an interest and enthusiasm which permit all work to be conducted on a high, qualitative plane. Classes are not conducted to be a vehicle by which students may obtain credit by easy and slipshod

methods. Credit is awarded only when the quality of the student's work meets the definition of Requirements of the College Entrance Examination Board and the New England College Entrance Certificate Board.

10. Its graduates have proved successful in college, in the professions, and in business life.
11. There are adequate laboratories, classrooms, and other facilities.
12. The administrative organization affords opportunities for skilled educational and vocational guidance.

### AIMS OF THE SCHOOL

The aims of the Lincoln Preparatory School may be classified as follows:

- (a) The offering of educational opportunities to men and women by methods of instruction carefully adapted to the needs of adult students.
- (b) The providing of this instruction at convenient evening hours, so that the student need not leave his or her present employment while obtaining an education.
- (c) The conducting of the school work on such a high qualitative plane that those students who wish to prepare for college may be adequately prepared for entrance examinations, or for entrance on certificate if their ability and performance warrant.
- (d) The offering of a general program to those who do not plan to enter college, that they may develop a taste for the better things in life and that they may advance to a larger personal growth.
- (e) The selection of the most competent and experienced faculty available.
- (f) The maintenance of the excellent work which has earned for the School the approval of the New England College Entrance Certificate Board.
- (g) The personal interest of every school officer in the individual problem of the student.

### ALUMNI

The Alumni of the Lincoln Preparatory School are excellent witnesses of the work the School has done and is doing. One of our greatest rewards is the satisfaction of receiving from our former students, in the form of letters and personal visits after they have left school, their thanks and appreciation for our efforts.

Many of our graduates are engaged in the various professions, such as Law, Medicine, Teaching, and Dentistry. Lastly, many are engaged in successful business activities and in public life.

Furthermore, the School has been of benefit to many who did not complete our graduation requirements but obtained here the credits necessary for college entrance or for some other specific purpose, having completed elsewhere part of their high school training.

Women graduates of this School are in the hospital training schools of the State or have graduated therefrom. Some occupy teaching and administrative positions in our hospitals.

Many of our students are in colleges and professional schools scattered across the country. The following are some of the colleges that have been attended by Alumni of the Lincoln Preparatory School:

Harvard University	Simmons College
Tufts College	University of Maine
Massachusetts Institute of Technology	Clark University
Boston University	Massachusetts State College
University of Michigan	University of Chicago
Jackson College	Syracuse University
Purdue University	Yale
University of Alabama	Dartmouth
University of Maryland	Bowdoin
Columbia University	Bates

### FACULTY

In an evening school it is particularly essential that none but men of wide experience and high ideals be appointed to the faculty. Accordingly the faculty of the Lincoln Preparatory School has been very carefully chosen, all its members having been educated in the leading colleges and universities. They are men of culture and high ideals who are in sympathy with evening school students and

understand their aims. They have had excellent training and wide experience in the subjects which they teach. Most of them have served with the institution for many years, and as a result of their personal devotion to the cause of education and their appreciation of the work this School is attempting, are naturally interested in its aims and success. The average length of the teaching experience of faculty members is twenty years. All of them are at present employed in the high and preparatory schools in Boston and vicinity or are engaged in graduate study.

### STUDENT BODY

The students of the Lincoln Preparatory School are men and women of earnest purpose, who have come to recognize the value of education but who through force of circumstances have been unable to complete a high school course. The ages of the students range *from fifteen to forty-nine* with the average age *twenty-four*. This fact proves conclusively that at all ages educational opportunities may be used to increase personal satisfaction through the development of a taste for the better things in life or to bring about material advancement and increased financial rewards. Some students are attempting to increase their vocational opportunities; some are completing a high school education begun elsewhere but interrupted; some are beginning here their high school work; some are adding to their training cultural or practical subjects which were formerly omitted from their training. In fact, the School is ready to serve students of all ages at a point where they need real service.

The student body represents also men and women from all walks of life, as may be seen from the occupational distribution given below.



*Occupational Survey*

Among the occupations of the student body enrolled for the school year 1938-39 the following are representative:

Accountants	Gardeners	Optical Workers
Assistant General Managers	Gas Station Attendants	Painters
Bakers	Hairdressers	Photographers
Bookkeepers	Helpers	Pipe Fitters
Bowling Alley Attendants	Hospital Attendants	Plumbers
Butchers	Hospital Supervisors	Podiatrists
Carpenters	Housemen	Policemen
Cataloguers	Housewives	Pressers
Chauffeurs	Janitors	Radio Service Men
Clergymen	Laboratory Assistants	Recreational Leaders
Clerks	Laborers	Sales Men and Women
Coffee Blenders	Landscape Gardeners	Secretaries
Companions	Machine Operators	Shippers
Compositors	Machinists	Shoeworkers
Contractors	Manufacturers	Steel Superintendents
Domestic Workers	Meat Curers	Stenographers
Doormen	Mechanics	Tailors
Dressmakers	Menders	Teachers
Drivers	Messengers	Technicians
Electricians	Milkmen	Telephone Operators
Elevator Operators	Musicians	Textile Operators
Engineers	Nurses	Waiters
Foremen	Office Workers	Wrappers
Funeral Directors	Oilers	

*Geographical Survey*

The following list indicates the areas from which the students of the school year 1938-39 came:

Allston	Haverhill	Reading
Andover	Islington	Revere
Arlington	Jamaica Plain	Rockport
Belmont	Lawrence	Roslindale
Beverly	Lexington	Salem
Boston	Lowell	Saugus
Braintree	Lynn	Somerville
Brighton	Malden	Stoneham
Brookline	Mattapan	Swampscott
Cambridge	Medford	Waban
Charlestown	Melrose	Waltham
Chelsea	Methuen	Waverly
Dedham	Milton	West Roxbury
Dorchester	Natick	Winchester
Everett	Newton	Winthrop
Franklin	Peabody	Wollaston
Gloucester	Pinehurst	Worcester
Hyde Park	Quincy	



One of the Classrooms



Physics Laboratory

## **INFORMATION REGARDING ADMISSION**

### **ADMISSION REQUIREMENTS**

Any man or woman of good moral character, regardless of occupation, race or creed, who has completed at least eight grades of a grammar school, or the equivalent, may enroll in the School. Provided a sufficient number enroll, special courses will be formed for those who have not completed the work of the eighth grade.

Courses adapted to the needs and education of such applicants are offered each term. It is not advisable, however, for one younger than sixteen years of age to register, for the courses are adapted to those who are more mature and are physically able to work during the day and to study at night.

Students who do not intend to enter higher institutions of learning may select from the offering of courses a special combination of subjects which will benefit them in the work in which they are engaged during the day. Before enrolling for such subjects, students are urged to see the Principal, explaining the particular nature of the employment in which they are engaged, so that he can arrange the course best suited for their needs. Special combinations of courses may be selected to embrace business, science, or special technical work.

### **APPLICATIONS FOR ADMISSION**

Applications for admission should be filed as early as possible in order that the necessary investigations may be made and the status of each student definitely determined before the opening of the term.

### **CREDIT FROM OTHER SCHOOLS**

Students who have completed high school work in other approved institutions may obtain credit for that work towards the diploma of this School by presenting a certified transcript of record from the school previously attended.

The officers of the School are glad at all times to obtain for prospective students transcripts of their records of work at other schools, evaluate such records in terms of diploma credits and suggest a program, indicating the cost of the program and the time necessary to meet graduation requirements. The responsibility devolves upon the student for making sure that his program does not contain a subject for which prior credit has already been awarded in some other school. Such courses, however, may be taken without credit as review courses preparatory to later advanced work.

## TUITION AND OTHER FEES

*Registration Fee.* \$5 is payable by all students on their initial entrance to the School. This fee is not returnable except where a student is refused admission.

### REGULAR TERM

*Full Courses:* The Regular Term begins in September and continues for 32 weeks. During this term students may carry three courses. Exceptional students or those having ample time for study may be permitted to carry four courses.

The cost of each course is \$40, payable as indicated below:

One Course: payable in four successive monthly payments of \$10.

Two Courses: payable in eight successive monthly payments of \$10.

Three Courses: payable in eight successive monthly payments of \$15.

Payments are due on the third Tuesday of each month.

### WINTER TERM

*Full Courses:* The Winter Term begins in January and extends for 20 weeks. The work is carried on more intensively than in the Regular Term, but the same ground is covered, primarily by means of a longer classroom period. During this term students are permitted to carry two courses.

The cost of each course is \$40, payable as indicated below:

One Course: payable in four successive monthly payments of \$10.

Two Courses: payable in four successive monthly payments of \$20.

Payments are due on the second Tuesday of each month.

### SUMMER TERM

*Full Courses:* The Term begins in June and extends for 15 weeks. A full year's work is covered in each course, but because of the intensive nature of the work, a student's program must be limited. Superior students may be permitted to carry two courses.

The cost of each full-unit summer course is \$30, payable as indicated below:

One Course: payable in three successive monthly payments of \$10.

Two Courses: payable in three successive monthly payments of \$20.

### HALF COURSES

Half courses are available in each term. The duration of a half course is usually 16 weeks in the Regular and Winter Terms and 12 weeks during the Summer Term. The cost of each half course is \$20, payable in two successive monthly payments.

### SPECIAL RATES FOR SCIENCES

BIOLOGY . . . . .	\$40.00	PHYSICS . . . . .	\$40.00
Laboratory Fee . . . .	10.00	Laboratory Fee . . . .	5.00
CHEMISTRY . . . . .	\$40.00		
Laboratory Fee . . . .	5.00		
Deposit . . . . .	5.00		

The unused portion of the chemistry deposit is refunded after deduction for breakages.

*No reduction in fees is made because of late enrollment.*

*In certain cases even the installment plan of payment will not meet the needs of many deserving students. Such students are requested to confer with an officer of the school regarding a satisfactory plan for the payment of fees.*

### CHARGES FOR PARTIAL ATTENDANCE

In the event of a student's withdrawal from school, he is charged on a *pro rata* basis for the weeks he has attended. These charges are as follows:

32-week courses — 4% of the total charges for each week of attendance.

20-week courses — 6% of the total charges for each week of attendance.

16-week courses — 8% of the total charges for each week of attendance.

The same charges are applicable in the event that a student abandons a part of his program. In addition the full Laboratory Fee is charged in those cases where a student is pursuing a laboratory course.



### MISCELLANEOUS FEES

The fee for a condition or make-up examination regularly scheduled is \$3.

The fee for a make-up quiz regularly scheduled is \$1.50. The diploma fee is \$3.

### CHARGES FOR DAMAGES

Students who damage apparatus in the laboratories or who willfully destroy school property will be responsible for the replacement of such damaged articles or for the cost of replacing where this is undertaken by the School.

### REFUND POLICY

Students who are forced to withdraw from a course or from the School are expected to notify the school office by completing the withdrawal blanks which will be furnished.

Since the School assumes the obligation of carrying the student throughout the year for which he registers, and since the instruction and accommodations are provided on a yearly basis, the Executive Council has ruled as follows:

- A. *Applications for refunds must be presented within forty-five days after withdrawal from school.*
- B. Refunds in the case of complete withdrawal from school will be granted by the Committee on Withdrawals for reasons which they deem adequate. Among the reasons deemed adequate are the following:
  - (a) Personal illness.
  - (b) Change of employment by direction of employer, whether in the schedule of time or in place of employment.
  - (c) The situation where the student becomes the sole or partial support of the family, so as to make it impossible for him to continue his studies.
  - (d) Loss of position.
  - (e) Change of residence.
  - (f) A voluntary change of employment, the hours or the residence being such that he is unable to continue attendance.

In all the above cases it is expected that a medical certificate, letter from employer, or other appropriate substantiating documentary evidence will be produced by the student.

## ADMINISTRATIVE REGULATIONS

### EXAMINATIONS AND QUIZZES

Examinations are held throughout the term at the discretion of the instructors. Final examinations are required upon the completion of all courses. The following system of grading is used:

A	Excellent	C	Fair	E	Conditioned
B	Good	D	Pass	F	Failure

A student marked E (conditioned) may enroll in the advanced course in the same subject immediately following, but upon condition that he remove his deficiency by special examination early in the next term. A fee of \$3 is required for each such examination regularly scheduled.

A student receiving the grade of B is exempt from examination when applying for admission to the colleges composing the New England College Entrance Certificate Board. A list of these colleges is given on page 28.

### TRANSFERS

Students are not permitted to change from one course to another without first consulting the Principal and receiving a Transfer Order signed by him.

### REPORTS OF STANDING

An informal report of the student's standing is issued at the end of the first term; and the formal report, covering the year's record, is issued at the close of each year.

In the case of students who are under twenty-one years of age, reports may be sent to parents in the event of unsatisfactory work on the part of the student, non-compliance with administrative regulations, continued absence, and withdrawal. Parents of minors may obtain reports at any time on request.

### ATTENDANCE REQUIREMENTS

A careful record of attendance upon class exercises is kept for each student. Absence from regularly scheduled classes on any subject will seriously affect the standing of the student. It may cause the removal of certain subjects from his schedule and the listing of these as "conditioned subjects." However, if reasonable excuse for absence be presented, the student may be allowed to

make up the time lost, and be given credit for the work; but he must complete the work at such time and in such manner as his instructor in the course shall designate.

A minimum attendance record of 75 per cent must be maintained in all classes before a student will be admitted to examination.

### **LATE REGISTRATION**

Students should avoid late registration. It is of fundamental importance that they be present at the first class sessions if they are to be successful in their studies for the year. Those who find it necessary to register late may be permitted to enter the School provided they have not lost so much work as to render it impossible for them to proceed with the courses.

### **NOTIFY THE OFFICE IMMEDIATELY**

- (a) Of any change of address;
- (b) Of withdrawal from any course — otherwise the fee for that course will be charged;
- (c) Of withdrawal from the School — giving the date of the last lecture attended.

## INFORMATION REGARDING PROGRAM

### THE UNIT SYSTEM EXPLAINED

Frequent reference is made in this catalog to "units" and that there may be no misunderstanding in the minds of students, this explanation is offered. A unit of high school credit is given upon the satisfactory completion of the work of one school year in a single standard subject, the equivalent of which is covered by this School in thirty-two weeks or in the intensive courses of twenty and fifteen weeks offered in the winter and summer terms respectively. The following exceptions are to be noted: Four full courses in English total three units towards graduation or towards college entrance: Algebra 2, although a sixteen-week course, carries one unit of credit towards graduation.

### TERMS AND HOURS OF ATTENDANCE

When assigning a program for a student the school officers usually assign work which requires attendance for *only two evenings a week*.

All classes are scheduled to meet between the hours of 7 and 10 p.m.

Each term a schedule is prepared listing the courses to be offered and the hours at which they meet. A copy may be obtained on request.

Following is the general arrangement for the completion of a course in each term of the school year.

#### Fall Term (32 Weeks)

One full-unit course requires attendance for one hour twice a week. Students may carry one, two, or three courses during this term.

#### Winter Term (20 Weeks)

One full-unit course requires attendance for one and a half hours twice a week. Students may carry one or two full-unit courses during this term.

#### Summer Term (15 Weeks)

One full-unit course requires attendance for one and a half hours twice a week. Students may carry one or two full-unit courses during this term.



One of the Classrooms



Biology Laboratory



**COURSES OF STUDY**

Algebra 1	German 1
Algebra 2	German 2
*Biology	Government
*Chemistry	History (Ancient)
Economics	History (European)
English 1	History (English)
English 2	History (U. S.)
English 3	Latin 1
English 4	Latin 2
French 1	Latin 3
French 2	Latin 4
French 3	*Mechanical Drawing
Geometry (Plane)	*Physics
Geometry (Solid)	Spanish
	Trigonometry

**HOW TO PLAN YOUR PROGRAM OF CLASSES**

In choosing subjects each term students should bear in mind:

- (a) The requirements for graduation from the Lincoln Preparatory School. These are given on page 29.
- (b) The admission requirements of the higher institution they wish to enter. Catalogs of most colleges are on file at the school office. In case of doubt, consult these and talk with the Principal.
- (c) The special requirements for various professions and vocations.
- (d) Their special interests, in the event that courses are chosen from the cultural point of view.

It is especially important to meet the requirements for graduation so that a diploma may be obtained. Most colleges not only require fifteen units of high school work, but also insist that the student be a graduate of a recognized high school. Moreover, in business and in everyday life it means infinitely more to say one is a high school graduate than merely to say one has completed fifteen units of high school work.

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\* These courses meet only once a week in the fall term; all other courses meet twice a week, usually on Tuesdays and Fridays.

### HOW LONG WILL IT TAKE TO OBTAIN A DIPLOMA?

The flexible schedule and the twelve months' operation of the Lincoln Preparatory School enable a student to save considerable time. The exact time that it will take to obtain a diploma is dependent upon credit from former institutions attended, hours available for study, and the number of courses pursued. A student who begins his high school work in the Lincoln Preparatory School can complete his course in from three to five years. However, it is urged upon students that *a high school education is a matter of accomplishment and not a matter of time*, and the School insists on a high standard of accomplishment.

### ADMISSION TO COLLEGE

Since the Lincoln Preparatory School offers regular college preparatory courses for those who wish to enter college, a student, according to his record and his plan of procedure, may enter college in one of the following ways:

**By diploma.** Certain colleges will admit students on the diploma from this School. Among these colleges are all those that accept a standard high school diploma.

**By examination.** A few colleges, notably Harvard, Yale, and the Massachusetts Institute of Technology, require certain examinations from all candidates. This School prepares students for all college entrance examinations and for the examinations of the College Entrance Examination Board.

**By certificate.** The School is accredited by the New England College Entrance Certificate Board. Some of the colleges which accept the certificate of this School are Amherst, Bates, Bowdoin, Colby, Massachusetts State College, Clark, Middlebury, Tufts, Wesleyan, and Williams. Generally speaking, *institutions that accept students by the certificate method will accept the certificate of this School. The certificate grade is 80 per cent.*

## REQUIREMENTS FOR GRADUATION

The diploma of the Lincoln Preparatory School is granted on the completion of fifteen units of work, of which at least four must have been earned in the Lincoln Preparatory School. In addition, each student must have completed in this School or elsewhere the required subjects for the diploma for which he is a candidate.

### CURRICULA

#### College Course Diploma

##### A. For admission to Liberal Arts Colleges.

This course prepares for most colleges that offer the degree of Bachelor of Arts.

<i>Required:</i>	Units
College Preparatory English.....	3
Algebra.....	2
Plane Geometry.....	1
French, or German, or Spanish.....	2
Physics, or Chemistry, or Biology.....	1
United States History.....	1
Latin, or Greek.....	2
	12

##### *Elective:*

The remaining three units may be selected from the following:

	Units
Spanish.....	2 to 3
Latin.....	1
French.....	2 to 3
European History.....	1
Ancient History.....	1
Solid Geometry.....	1/2
Trigonometry.....	1/2
Chemistry, or Physics, or Biology.....	1

*One unit of a foreign language is not acceptable for credit.*

Language and Mathematics requirements vary somewhat for entrance to the different colleges. This is especially true of the Latin requirements. Some colleges require three entrance units in either French or German. *It is the student's responsibility to meet the requirements of the college he elects to enter.*

In addition, other electives may be permitted by special consent provided they are acceptable by the college to which the student seeks entrance.

##### B. For admission to Engineering Schools and Colleges of Liberal Arts offering the degree of Bachelor of Science.

<i>Required:</i>	Units
English.....	3
French, or German, or Spanish.....	3
Algebra.....	2
Plane Geometry.....	1
Physics, or Chemistry.....	1
United States History.....	1
Trigonometry and Solid Geometry.....	1
	12

## LINCOLN PREPARATORY SCHOOL

Language and Mathematics requirements vary somewhat for entrance to the different colleges. *It is the student's responsibility to meet the requirements of the college he elects to enter.*

### *Elective:*

Subjects may be selected from either the Required or Elective List of the Classical Course to make up the necessary fifteen units.

*One unit of a foreign language is not acceptable for credit.*

## General Course Diploma

The General Course offers a general education and also, *if the right selection of subjects is made*, enables students to enter certain colleges. A wide selection of subjects is available but choice of as many college preparatory subjects as possible should be made.

### **Required: Five Units**

	Units
English . . . . .	3
United States History . . . . .	1
Physics, or Chemistry, or Biology . . . . .	1
	—
	5

### **Limited Electives: Three Units**

#### *Mathematics Option (choose one option)*

Algebra 1 and 2 . . . . .	3
Plane Geometry . . . . .	3
or	
Algebra 1 . . . . .	
Plane Geometry . . . . .	
Physics . . . . .	3
(When Chemistry or Biology has been taken as a required subject)	

#### *Language Option*

Three units of any one of the following or two units of any two:  
French, Latin, German, and Spanish . . . . . 3 or 4

#### *Social Science Option*

Economics, Government, English History, Ancient History, European History, etc. . . . .	3
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### **Free Electives: Seven Units**

Any standard high school subjects to complete total of 15 units.

*One unit of a foreign language is not acceptable for credit.*

## SPECIAL PROGRAM FOR CANDIDATES FOR THE NURSING PROFESSION

The State Board of Registration in Medicine and the Board of Registration for Nurses have ruled that a high school education or its equivalent is a prerequisite for admission to hospital training schools.

The high school certificate must show the completion of fifteen units accepted by the high school in meeting graduation requirements. These fifteen units are to be as follows:

<b>Required</b>	(6 units)	
1. English (4 years)		3 units
2. U. S. History		1 unit
3. Mathematics (Algebra and Plane Geometry)		2 units
	or	
Science (General Science, Chemistry, Physics, and Biology)		2 units
One unit of each group will not be accepted.		

<b>Limited Electives</b>	(6 units selected from the following)	
1. Foreign Modern Language		2, 3, or 4 units
2. Greek or Latin		2 or 3 units
3. Mathematics (Algebra, Plane Geometry, Arithmetic, etc.)		1, 2, 3, or 4 units
4. Science (Biology, Physics, Chemistry, etc.)		1, 2, 3, or 4 units
5. Social Studies (History, Economics, Gov- ernment, Civics, etc.)		1 unit
6. Commercial Subjects (Commercial Geog- raphy, Business Law, Shortland including typewriting, etc.)		1 unit
7. Practical Arts (Home Economics, Dietetics, Domestic Science, etc.)		1 unit

### Free Electives (3 units)

These three units may consist of any work which the high school accepts as meeting its graduation requirements.

An officer of the School will be glad to arrange a program so that these electives will be judiciously chosen, not only to aid the student in the subsequent subjects, but to meet the requirements of other States with whom a reciprocal arrangement exists with the State of Massachusetts.



For those already engaged in the profession of nursing, attention is directed to facilities which are available to those who have not completed a high school education in accordance with the above demands. New regulations have been formed regarding institutional promotion and regarding teaching and administrative positions in hospitals, and while such legislation is not retroactive, it will certainly prove helpful to those who already occupy such positions to be adequately equipped for advancement and promotion in the event of transfer.

The work conducted by the Lincoln Preparatory School is acceptable to Massachusetts hospitals and to the State Board of Registration of Medicine.

## GENERAL INFORMATION

### LIBRARIES

The School has excellent facilities for study in the Northeastern University library and reading room, which is equipped with dictionaries, encyclopedias, and special texts for carrying on the work of the School effectively.

Students also have the privilege of taking books from the Boston Public Library and of using the library for general reference and reading.

### TEXT BOOKS AND SUPPLIES

The Lincoln Preparatory School enjoys the facilities of the Northeastern University Bookstore, which is a department of the University and is operated for the convenience of the student body. All books and supplies which are required by the students for their work in the University may be purchased at the Bookstore.

### RAILROAD TICKETS

Vouchers for half-fare tickets on the Boston Elevated Railroad are issued by the school office on the first, sixth, and eleventh Fridays of each term. The railroad systems entering Boston issue students' tickets to students under twenty-one years of age. Applications for these may be obtained at a railroad office and presented at the school office for signature.

### VISITORS

Visitors are always welcome at one class session in any department. Those who wish to visit any of the classes should call at the school office and obtain a visitor's card signed by the Principal.

### INTERVIEWS AND EDUCATIONAL GUIDANCE

Prospective students or those desiring advice or guidance with regard to any part of the school work or curricula, or who wish assistance in the solution of their educational problems, should note the fact that interviews are available without obligation, and that the officers of the School will do their utmost to see that a program is designed which is the most satisfactory for the individual student. In certain cases, other institutions may be

recommended which suit the student's needs better. Furthermore, it is important that those with educational problems to solve should realize the necessity for care in approaching educational work so that the program selected will be on the best educational basis.

### LOCATION OF SCHOOL

The work is conducted in three buildings of Northeastern University situated on a six and one-half acre campus on Huntington Avenue just beyond Massachusetts Avenue opposite the Boston Opera House.

The West Building contains the headquarters of the school. This building has a hundred thousand square feet of space and is adequately equipped with classroom and laboratory facilities.

The East Building of the University is the educational wing of the Huntington Avenue Branch of the Y. M. C. A. It contains the library, classrooms, and the Chemical laboratories.

The South Building is situated in rear of the East Building and contains classrooms, and the Electrical and Biological laboratories.

The School is easily reached from the North and South Stations, from the various points of the Boston Elevated Systems, and by automobile. Ample parking facilities are available in the rear of the East Building and in the area adjacent to the West Building.

### SCHOLARSHIPS

The Executive Council has made available a few scholarships to assist needy students of good mental capacity who because of financial limitations might be deprived of educational opportunities. These scholarships when awarded usually meet one-half of a student's tuition charges for the year.

## OUTLINES OF COURSES

*Note:* The courses of the School are arranged in "units."

A unit is ordinarily the amount of work covered in a single subject taken four or five times a week for a year in a standard day high school.

In this School a unit may be covered in each subject in thirty-two weeks. See page 25 for explanation of unit system.

Students carry one, two or sometimes three subjects at a time. Fifteen units, properly selected (see pages 29 and 30), are required for graduation.

The high school courses described below are the equivalent of similar courses offered in a standard day high school.

The Lincoln Preparatory School reserves the right to change the arrangement of courses, the requirements for graduation, tuition fees, and other regulations affecting the students. Such regulations will affect both old and new students.

### ENGLISH

The fundamental purposes of the department are to give the student efficient training in grammar in order to afford a sound basis for correct speech and writing; to instill correct principles of constructing sentences and paragraphs; to help him enlarge his vocabulary and to acquire an interest in words; to train him in the elements of logic as related to the organization and expression of thought; to teach him how to study; to impart an elementary knowledge of the types and the history of English literature; and to aid him in forming a taste for good literature and a genuine appreciation thereof.

**English 1.** This course is designed to bridge the gap between grade and high school English. Fundamentals of English grammar, the correct sentence, the more important rules of spelling and punctuation, simple compositions — especially the letter — and an introduction to literary selections as models for voluntary reading are presented.

**English 2.** This course marks the beginning of a more intensive study of English, both as a tool and as literature. Functional grammar, development of the paragraph, careful planning of themes, and a beginning of the critical study of literary forms, both poetry and prose, form the basis of the course.

**English 3.** This is an advanced course in composition including précis-writing and the structure of paragraphs and sentences. There is a rapid review of grammar and punctuation. The essay, the drama, the novel, and types of poetry are studied.

**English 4.** This is a college-preparatory course in composition and literature, with a thorough review of the fundamentals. Special attention is paid to the requirements of the College Entrance Examination Board.

### LATIN

Exercises in translation at sight begin with the first lessons in which Latin sentences of any length occur, and continue throughout the course to insure correct methods of work on the part of the student. In the translations of passages from the Latin, the use of clear and natural English is insisted upon. Reading aloud is encouraged. The work in Latin Composition aims to give the student a thorough knowledge of the fundamental principles of Latin syntax. It has been found ad-

advantageous to use a double system of note-books, calling for special written work from the student. This work deals with Latin forms, principles of Latin syntax, writing of English-Latin sentences, and finished translations of selected passages from the Latin. These courses in Latin fulfill the requirements of college entrance examinations.

**Latin 1.** Exercises in translations, English-Latin, Latin-English. Drill in Latin forms, drill in Latin syntax. The course aims to give the student a thorough knowledge of the fundamental principles of Latin syntax.

**Latin 2.** The Latin reading is not less in amount than Caesar, Gallic War, I-IV. This amount of reading is taken from Caesar (Gallic War and Civil War), Nepos (Lives), Aulus Gellius, Eutropius, Phaedrus, Quintus Curtius Rufus, and Valerius Maximus, or books of selections containing some of these with other authors of prose works. Special attention is given to sight translation, to vocabulary study, to the Latin Word List, which contains those words the student is expected to know at the end of two years of the study of Latin. There is continued drill in Latin syntax and in Latin forms. This course in second year Latin aims to meet the needs of those students who plan to enter colleges that require only two years of Latin.

**Latin 3.** The Latin reading is not less in amount than Cicero, the oration against Catiline, for the Manilian Law, and for Archias. This amount of reading is selected from Cicero (orations, letters, and De Senectute), Sallust (Catiline and Jugurthine War). The reading for the year includes selections from such authors as Pliny, Livy, or books of selections containing these and other authors of prose works. Special attention is given to the study of passages of Latin prose set for comprehension. The course aims to cultivate in the student the ability to render unseen passages of Latin prose into clear and natural English, as well as the ability to write simple Latin prose. Due attention is given, therefore, to vocabulary study, to the Latin Word List, which contains those words the student is expected to know at the end of three years of the study of Latin. The political and social life in Rome in the time of Cicero is studied.

**Latin 4.** The reading is not less in amount than Virgil, Aeneid I-IV. This amount of reading is taken from Virgil (Bucolics, Georgics, Aeneid), Ovid (Metamorphoses, Fasti, and Tristia), or from books of selections containing poems or extracts from other poets. Special attention is given to the study of passages of Latin verse set for comprehension. The course aims to cultivate in the student the ability to render unseen passages of Latin verse into clear and natural English, as well as the ability to write simple Latin prose. Due attention is given, therefore, to Latin forms, Latin syntax, to vocabulary study, to the Latin Word List, which contains those words the student is expected to know at the end of four years of the study of Latin. Literary and historical allusions, prosody, and questions on subject matter are studied.

## FRENCH

The courses in French are planned with the purpose of giving the students (1) an appreciative comprehension of French, both as literature and as a spoken language; and (2) a sufficient knowledge to fit them for advanced work. The essentials of the grammar are mastered by continued drill and constant application. The attainment of good pronunciation receives careful attention, and from the beginning the student is trained to understand spoken French.



**French 1.** This course begins with instruction in pronunciation and division of words into syllables. Phonetic symbols are not used. The acquisition of a basic vocabulary is stressed and the memorizing of word groups and short sentences.

The instruction in Grammar consists of the elementary forms and uses of articles, nouns, adjectives, pronouns, adverbs, regular verbs, and a few common irregular verbs. Much emphasis is placed upon written translation of English into French.

The reading text provides for the translation of at least seventy-five pages of simple French. This is largely oral translation.

The text books are Roux' Premier Cours de Francais and Roux' Elementary French Reader.

**French 2.** This course completes the elements of grammar and syntax, with great emphasis upon forms and practice in their use in written composition. Frequent review lessons help to make the student familiar with the essentials.

The text books are Olmsted-Sirich's Alternate French Review Grammar and Ford and Hicks's A New French Reader, which provides selections from the works of well-known French authors and gives a useful vocabulary of common words.

**French 3.** Barton and Sirich's "New French Review Grammar and Composition" is used and provides a general review and further advance in grammar and in written translation or connected prose. All the common irregular verbs and many idioms should be learned.

Buffum's "French Short Stories" provides for the reading of selections from the works of several modern prose authors.

## GERMAN

At the end of the elementary course in German, the student should be able to read at sight and to translate a passage of easy German prose. He should be able to put into German, short English sentences taken from the language of everyday life, and to answer questions upon principles of German grammar. The course aims to meet the needs not only of those students who are seeking a general knowledge of German, but also of those students who are planning to take the college entrance examinations.

**German 1.** Chiles-Wiehr "First German Book" is used as a grammar and composition book. This is supplemented by reading Gueber Märchen und Erzählungen I, II, Immensee by Storm. Drill in pronunciation; practice in reading the German text aloud; memorizing of simple verse and prose selections.

**German 2.** "Chiles German Composition and Conversation" is used as a text book. This is supplemented by reading "Emil und die Detektive" by Kästner, followed by translating such works as "Germelshausen" by Gerstäcker, "Die Braune Erica," by Jensen. Exercises in comprehension; memorizing of simple German verse and prose selections. "German Frequency Word Book" by Morgan, "German Idiom Word List" by Hauch are used.

## SPANISH

**Spanish 1.** The work of the first year is so planned that it serves as a complete unit in fundamentals for the student who wishes to continue the language independently by travel or reading. Correct pronunciation, a knowledge of the grammatical structure of the language, and an ability to read and write within the

limits of a practical vocabulary are the goals of the course. Standard elementary readers are used in connection with a grammar text such as Hills and Ford, *First Spanish Course*.

**Spanish 2.** After a rapid review of the work covered by Spanish 1, the second year is devoted to the enlargement of vocabulary including common idioms, the increase of skill and speed in translation with special emphasis upon sight translation and free composition. The course prepares for the elementary examination in Spanish given by the College Entrance Examination Board. The use of a standard composition book is supplemented by much reading of current as well as classical Spanish.

## HISTORY, GOVERNMENT, ECONOMICS

The aim of the department is to give a broad knowledge of vital conditions in the growth of the leading countries of the world. This includes the study, not only of important historical facts, but more especially of the progress of development in government, society, business religion, and education. The past is studied that the present may be better understood.

**History (English).** This course is a study of English History from the time of the Roman Conquest to the present. Special emphasis is given to the study of the structure of government and the legal system because of their bearing upon American development. Study of English foreign policy is essential to a better understanding of international problems of the present. Study of church problems, the Industrial Revolution, democratic growth are stressed because of present-day tolerant attitude in regard to religion, views as to wisdom of dictatorial or democratic government, and ever changing economic conditions.

**History (United States).** A careful and comprehensive study is made of United States History, including not only the story of earlier times, but also an analysis of events from the Civil War down to and including our own times. Special reference is made to the social and industrial development of the country, economic progress, sources and effects of immigration, and of American government. The course is designed to cover the requirements of the College Entrance Examination Board.

**History (European).** In this course a study is made of the European powers from the beginning of the seventeenth century to the present. Autocracy rampant in the seventeenth and eighteenth centuries begins to decline in the latter eighteenth century with the French Revolution. This decline continued in the nineteenth century, giving way to democracy, which reached its peak following the World War, only to yield in many countries to dictatorships of the present day. International relations are traced, noting especially the influence of commerce and the subsequent imperial rivalries and wars. The Industrial Revolution, with its profound effect upon humanity, forms another important part of the course. Considerable stress is given to great leaders of the different European powers.

**History (Ancient).** This course devotes one term to the study of the Ancient Orient and Greece as far as the death of Alexander and the break-up of his empire, with the expansion of Greek culture in the Mediterranean world. The second term is devoted to the study of the history of Rome to the year 476 A.D. The course emphasizes the characteristic elements of these civilizations. The work calls for the study of an accurate historical text book, in which not less than five hundred

pages of text are devoted to the particular subject. Special attention is given to map study. The work is supplemented by a topical study of outstanding phases of the history of the period, including growth of institutions, historic characters outstanding events and periods. The work calls for consultation of standard writers on Ancient History, especially books of Readings in Ancient History. The aim of the course is to meet the needs of those students who are seeking a general knowledge of the subject as given in a high school, to prepare students for the examinations that are given by the College Entrance Examination Board as defined in the Definition of Requirements, published by the Board.

**Government.** The forms of our local and state governments are taken up first. These are followed by a careful analysis of the Constitution of the United States, showing the relationship of the executive, legislative, and judicial branches of our National Government.

During the second semester a study is made of South America and the principal nations of Europe, and in addition the smaller nations where innovations may make investigation of governmental methods worth while. Because of constant comparison with United States Government, Government 1-A is a prerequisite.

**Economics.** The origin and development of our industrial system, and an analysis into its component parts, together with the economic phenomena accompanying them. It is intended to make economics of practical value in everyday life.

During the second semester the course embraces the reform and improvement of our industrial system; taxation, the tariff, international trade, transportation, labor and capital, public ownership, wages and profits, and other current economic problems are treated.

## MATHEMATICS

The courses in mathematics are planned to meet the needs of all secondary students. They afford an opportunity for preparation in the mathematical processes which are necessary for success in industrial, commercial, or professional careers. They are intended (1) to acquaint the student with such mathematical processes and methods as he is most likely to need in the successful pursuit of other studies and in the various trades and occupations; (2) to prepare the student for the successful pursuit of the more advanced branches of mathematics in technical schools and colleges.

**Algebra 1.** This course introduces the student to: (1) the positive and the negative number; to its application in the four fundamental operations leading up to the solving of formulas and equations, both linear and fractional in one and two unknowns; (2) the function and the graph for both pictorial representation and the solving of equations; (3) the literal number and the study of problems.

**Algebra 2.** Review of Elementary Algebra with more difficult problems. Quadratics and simultaneous quadratic equations with applications, progressions, binomial theorem, logarithms, and that part of Trigonometry required by the College Entrance Examination Board in its examination in Elementary Algebra.

**Geometry, Plane.** The five books of Plane Geometry are studied. The numerous original exercises stimulate the power to reason clearly and to derive logical proofs. Special attention is given to those who expect to take college entrance examinations. This course meets College Entrance Board requirements.

**Geometry, Solid.** This course comprises the standard theorems in solid and spherical geometry. Stress is laid upon numerical exercises involving mensuration of solid figures. The work is designed primarily for those who are preparing for college. This course meets College Entrance Board requirements.

**Trigonometry.** This course is intended for those who wish to offer trigonometry for college entrance, or for those who intend to take up engineering.

## DRAWING

**Mechanical Drawing.** The fundamentals of Mechanical Drawing are stressed in this course. A credit towards college entrance will be granted upon the completion of sixty-five problems or the equivalent. All work is individual and admits of progress according to the student's ability.

Instruction is given in the testing, use and care of the instruments and drawing supplies, and about thirty drawing plates are made. The topics studied in these plates include: technique practice, lettering, geometric constructions, orthographic projection, auxiliary views, revolution of objects, isometric, cavalier, cabinet and perspective projection, intersections, sections, helix and application, screw threads, dimensioning and inking.

## SCIENCE

**Biology.** This is a comprehensive course in Biology dealing with plants and animals; their relation to their environment. The fundamental phenomena of living things are stressed. The general biological laws and theories are discussed. Whenever possible, biological principles are illustrated by the laboratory study of both plant and animal forms.

**Physics.** This course is intended for two groups of students. First, it will meet the requirements of those expecting to enter a college or technical school. Secondly, it is intended to help those who wish a general knowledge of the important laws and principles of Physics as applied to modern everyday experiences. The applications of Physics in such fields as household appliances, the weather, the automobile, the airplane, radio, etc., are particularly stressed with the idea of giving a background of culture and enjoyment.

Many students interested in mechanical lines will find it giving them a clearer understanding of the operations of devices of which they make constant use.

Laboratory experiments and lecture table demonstrations will illustrate the subject matter studied in the text.

Although the course is not intended to be highly theoretical, an elementary knowledge of Algebra and Geometry will be of assistance in the solution of problems.

**Chemistry.** This course has the two-fold aim of preparing the student in Chemistry for entrance to any college or technical school and providing a general introduction to the subject for other purposes.

There are class discussions of chemical principles and of chemical materials, solution of numerical problems, practice in such exercises as writing of equations, demonstration experiments carried through by the instructor. The student does assigned experiments in the laboratory and writes reports of his work.

The more important elements, both non-metallic and metallic, as well as numerous compounds, are studied. Important laws and hypotheses of Chemistry are constantly stressed.

Unless there is urgent reason for following a different order, the student is advised to arrange his succession of courses in such a way that Chemistry will be preceded by a study of Physics.





# THE LINCOLN SCHOOLS

## EVENING SESSIONS

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### LINCOLN TECHNICAL INSTITUTE

#### ASSOCIATE IN ENGINEERING PROGRAMS

Courses leading to the Title of Associate in Engineering are offered in the following fields:

AERONAUTICAL ENGINEERING  
AIR CONDITIONING ENGINEERING  
ARCHITECTURAL ENGINEERING  
CHEMISTRY

CIVIL ENGINEERING  
ELECTRICAL ENGINEERING  
MECHANICAL ENGINEERING  
STRUCTURAL ENGINEERING

#### DEGREE PROGRAMS

A six-year program conducted in conjunction with Northeastern University School of Business is available which leads to the degree of B.B.A. in Engineering and Management awarded by Northeastern University.

#### SPECIAL COURSES

The following special courses are offered:

ARTIFICIAL LIGHT AND ITS APPLICATIONS  
ASTRONOMY  
BLUE PRINT READING AND ESTIMATING  
ELECTRONICS  
HEATING AND AIR CONDITIONING  
REFRIGERATION  
SUB-FRESHMAN COURSE  
THE AIRPLANE AND ITS ENGINE

Students may register for a complete curriculum or for individual courses.

### LINCOLN PREPARATORY SCHOOL

Fully accredited by the New England College Entrance Certificate Board. General, Classical, and Technical high school courses are available.

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For further information write indicating the school in which you are interested:

## THE LINCOLN SCHOOLS

360 Huntington Ave., Boston, Mass.

Telephone, KENmore 3177

# Huntington School

1938 - 1939



THE  
HUNTINGTON  
SCHOOL  
*for* BOYS

*An Urban Private Day School*

*With the Advantages and Physical Facilities of a  
Country Day School*

320 HUNTINGTON AVENUE  
BOSTON, MASS.





## FOREWORD

The Huntington School for Boys has as its primary purpose the adequate preparation of its students not only for entrance to but especially for success in the best colleges and universities. In this accomplishment the School has enjoyed a most creditable success.

The Huntington School has developed over a long period of years into a well organized and unified school, in which the outstanding factors are the excellence of the faculty, the results accomplished in preparing boys for college, the quality of the student body, and the splendid physical equipment.

This catalog sets forth in some detail what Huntington offers to boys of Greater Boston as a result of years of experience in preparing boys for college.

Within its pages we sincerely hope that our many friends, and the new friends whom we look forward to meeting and serving, will find such information as will be truly helpful in the solution of the very important problems which must be solved with boys who wish to go to college.



# HUNTINGTON SCHOOL FOR BOYS

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## OFFICERS OF THE SCHOOL

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## FACULTY

CHARLES HENRY SAMPSON, B.S., ED.M.  
(University of Maine) (Harvard University)  
*Headmaster*

WILLIAM SAWYER SPENCER, A.M.  
(Harvard University)  
*Head of English Department, Emeritus*  
*President, Huntington Chapter, Cum Laude Society*

THEODORE MARTIN CHASE, B.S., ED.M.  
(Mass. State College) (Harvard University)  
*Mathematics*

CARL FERDINAND CHRISTIANSON, A.B.  
(Wesleyan University)  
*History*

ROGER ARTHUR HARDY, B.S., M.B.A.  
(Boston University)  
*Commercial Subjects*

PRESTON HARVEY, A.B.  
(Bowdoin College)  
*Latin, Ancient History*

FREDERICK CHARLES HOSMER, A.B.  
(Boston University) (Harvard University)  
*Faculty Adviser of The Huntington Record*

PERCY EDWARD JONES, B.S.  
(Boston University) (Sloyd Training School)  
*Mathematics, Mechanical Drawing*

ROLAND LEO LEACH, A.B., ED.M.  
(Tufts College) (Harvard University)  
*French and German*  
*Director of Dramatic and French Clubs*

JAMES HARRIS MORSS, A.B., ED.M.  
(Boston University) (Harvard University)  
*English*

ARTHUR EUGENE NEWCOMB, JR., A.B., ED.M.  
(Middlebury College) (Boston University)  
*English*

## FACULTY (Continued)

ALFRED LORING SKINNER, A.B.  
(Harvard University)  
*Mathematics*

JOHN MOORE TROUT, JR., A.B., ED.M.  
(Princeton University) (Harvard University)  
*French and German*  
*Director of Chess Club*

HAROLD CLAYTON WILCOX, S.B., S.M.  
(Rhode Island State College) (Brown University)  
*Physics and Chemistry*  
*Director of Science Club*

WILLIAM GREENE WILKINSON, A.B., ED.M.  
(Boston University)  
(University of Kentucky) (McGill University) (Ecole Montcel)  
*French and Spanish*

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## COACHING STAFF

Director of Athletics	WILLIAM GREENE WILKINSON
Track	THEODORE MARTIN CHASE
Basketball	THOMAS ALFRED BLAKE
Swimming	RAYMOND ENGLISH MILLARD
Baseball	THOMAS ALFRED BLAKE
Football	
Tennis	JOHN MOORE TROUT, JR.
Intermediate School Athletics	PERCY EDWARD JONES

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EMILY RAMSAY, *Executive Secretary*  
PRISCILLA SPEARE, *Secretary to the Headmaster*  
MIRIAM BLAKE, *Recorder*  
MYRA WHITE, *Librarian*  
JOHAN GUSTAVE LARSSON, M.D., *School Physician*



# CALENDAR

## School Year 1938-39

School Year Begins	SEPTEMBER 21
Fall Term Examinations	DECEMBER 14-20
Close of Fall Term	DECEMBER 20
Winter Term Opens	JANUARY 3
Winter Term Examinations	MARCH 20-24
Close of Winter Term	MARCH 24
Spring Term Opens	APRIL 3
Final Examinations	MAY 31-JUNE 7
Commencement	JUNE 9
Special Program for College Board Examination Students	JUNE 12-16
College Entrance Board Examinations	JUNE 19-24
Summer Session (1938)	JULY 5-AUGUST 26
Summer Session (1939)	JULY 6-AUGUST 30

## HOLIDAYS

Columbus Day, Armistice Day, Thanksgiving Day, Washington's Birthday, Patriots' Day, Memorial Day.

# GENERAL INFORMATION

## INTRODUCTION

THE HUNTINGTON SCHOOL was established in September, 1909.

From the outset, emphasis has been placed upon the development of those qualities and habits which it is necessary for boys to possess if they are to succeed in meeting college entrance requirements and to succeed in college after gaining admission.

The School offers both a College Preparatory and General Course. Most boys who graduate from the General Course enter Colleges of Business Administration.

With the passing of the years fathers and mothers have made it very apparent that in Greater Boston there is need for a first-class private day school such as Huntington which presents a strong college entrance program, in an environment where character qualities are emphasized, and which, at the same time, allows their boys to remain under the direct influence of the home.

Huntington boys come from all points in Boston and the surrounding cities and towns, and at times we have students who commute from as far as Worcester, Providence and New Hampshire towns and cities.

Huntington is today the only urban private day school in Boston which presents a complete development program or has the facilities for doing so.

Huntington students have every opportunity to attain a sound and well-developed body, strong character, and independence of thought, through daily association with well-rounded Christian men, in their studies, sports and general school life.

Graduates of Huntington are found in practically all of the New England colleges and in many colleges and universities located outside of this area.

The School limits its enrollment to a maximum of two hundred boys each year. There is no desire to increase this number. It is sufficiently large for the promotion of school activities which are of interest and value to growing boys. The School is not so large as to make it difficult for the

Headmaster and his associates to keep in touch with each individual.

The School enrolls boys from the eighth grade through the high school. The student body is, therefore, divided into five forms. It is our belief that the best time for a boy to start his preparatory work for college is while he is an eighth grade pupil and that the ideal period necessary for completing a college preparatory program is as we have arranged it, namely, five years. The School enrolls boys, however, in any form for which they are adequately prepared.

Although Huntington is a Day School, a few boarding students are accepted. The School accepts no responsibility for such students in respect to activities outside of school hours. The School will co-operate to the fullest extent, however, in arranging for satisfactory living quarters for those who come from a distance.

**THE COMPLETE DEVELOPMENT PROGRAM AT HUNTINGTON**  
THE SCHOOL believes in the complete development of the individual and many opportunities are given a boy to discover and develop latent qualities.

For this reason, in addition to the regular program of studies there has been developed an extra-curricular program offering opportunities for supervised play, musical and other club activities. Competent leadership and excellent facilities are available for both the educational and extra-curricular programs.

Scholarship must, in a college preparatory school such as Huntington, occupy first place in its productive efforts but we believe that the boy who goes on to college with an appreciation of values as they should exist in a normal, active and happy life, is in a better position to succeed than one who does not have this appreciation.

#### LOCATION

THE SCHOOL is located in the Boston Y. M. C. A. building at 320 Huntington Avenue (nearly opposite the Boston Opera House) in the educational and cultural center of Boston. It is within easy reach of all points in Greater Boston. The running time by surface cars from Back Bay

Station is five minutes, and the cars from both the North and South Stations (by way of Park Street) reach the School in twenty-five minutes. The School is within easy walking distance of the Huntington Avenue, Trinity Place and Back Bay railroad stations. For those who use surface cars only, the School is fifteen minutes from Park Street in the Subway and a few minutes from Massachusetts Station in the Boylston Street Tunnel. The School is accessible by trolley and automobile from all suburban sections. There are parking facilities.

## BUILDINGS

THE SCHOOL is housed in a building especially equipped for educational work and for successfully carrying on the complete program which it sponsors.

**RECITATION BUILDING**      The recitation rooms, the physics and chemistry laboratories, and the drawing rooms are on the second, third, and fourth floors.

**NATATORIUM**      The swimming pool, seventy-five feet long by twenty-five feet wide, is supplied with filtered water heated to a proper temperature by an elaborate system of pipes. It is one of the finest in New England. The School has special hours reserved in the pool for its general swimming work.

**GYMNASIUM**      In the rear of the main building, and closely connected with it, is the Samuel Johnson Memorial Gymnasium, the largest indoor gymnasium in Boston. On the main floor is the gymnasium proper, equipped with the best of apparatus. The running track which encircles it fifteen feet above the floor level is twelve laps to the mile. A visitors' gallery on the same level seats 500. A special locker room, shower baths and special exercising rooms are on the floor beneath the gymnasium proper. The Huntington School has the use of the entire gymnasium area and equipment at definite scheduled periods.

## EQUIPMENT

CLASSROOMS	The classrooms are of standard size and are completely equipped with modern school furniture.
LABORATORIES	The School has well equipped laboratories for physics and chemistry for conducting its science courses.
LIBRARY	The School has excellent library facilities.
DRAWING ROOM	There is a well lighted and properly equipped mechanical drawing room.

## PLAYGROUNDS

THE HUNTINGTON SCHOOL has an athletic field of approximately five acres in the Longwood section of Brookline, on Kent Street, one and one-half miles from the school building. Transportation is furnished free of charge to and from the field. Here are ample and excellent facilities for all out-of-door sports. A completely equipped field house furnishes adequate facilities for both home and visiting teams. Altogether the School has one of the best athletic fields in Greater Boston. In addition to these grounds there are available at the school building tennis courts, jumping pits, and other facilities for games and sports.

## MORNING ASSEMBLY

THREE TIMES each week all students assemble in Bates Hall for the purpose of taking part in a brief devotional program. At this time matters of general interest in the school life are presented to the students.

The School is non-sectarian but thoroughly Christian in the conduct of all its religious activities. Occasionally at this



time educational talks of value are presented, and special programs are given by the boys, such as rallies, concerts, short plays, and speaking programs in observance of the holidays.

### LUNCH ROOM

A LARGE LUNCH ROOM is provided in the building. A satisfactory lunch may be had at a moderate cost.

### INTERMEDIATE AND SENIOR GROUPS

THE STUDENT body is divided into two principal groups, indicated as intermediate and senior.

Boys in the younger group are those taking subjects customarily offered in the eighth grade and first year of high school; the senior group is composed of boys who have one, two, or three years of work to complete before entering college.

Subjects are taught with a view to the student's *progressive development* and it is desirable for him to take, if possible, the entire course offered.

### SPECIAL STUDENTS

HUNTINGTON accepts each year a limited number of special students. Those taking one, two, or three subjects are so classified. Special students work for credit but not for the school diploma.

### DECISION ON TYPE OF COLLEGE COURSE IMPORTANT

PARENTS AND STUDENTS should understand that admission to an A.B. degree course in college generally requires that entrance units in Latin be submitted; entrance to a B.S. degree course does not require Latin but units in this subject may be submitted.

Decision as to a college is all-important. We believe that a great deal of thought should be devoted to the question, "What College is Best for the Boy?" The Headmaster is anxious to do what he can to help in college selection and welcomes appointments with either parents or boys for the purpose of discussing this subject.

## ADMISSION REQUIREMENTS

PARENTS OR GUARDIANS who wish to enter their boys in the School should fill in the Application Blank, which may be found at the back of the catalog, and return it to the Headmaster.

The School requires testimonials of good moral character of all students.

It is expected that no boy will apply for admission whose conduct in other schools has brought him discredit.

Early registration results in advantage to the student as special attention to his particular needs is made possible. A personal interview with the Headmaster of the School is required.

A registration fee of five dollars must accompany the application. This fee is in addition to the regular tuition charge and when once paid it will not be refunded.

Boys are accepted for admission to all grades from the eighth through high school.

## ENTRANCE EXAMINATIONS

THE SCHOOL reserves the right to give entrance examinations if such a procedure seems advisable. These examinations may be oral or written; they may be in the form of psychological examinations or aptitude tests.

The policy of the School is a liberal one as far as entrance requirements are concerned. Most Huntington students are admitted because of satisfactory previous records, without examination.

## CLASSIFICATION

IN THE UPPER Forms a boy is classified according to the units he has earned for college entrance.

Boys are accepted for the First Form (eighth grade) on the basis of previous records and, if necessary, of entrance examination results.

# GRADUATION REQUIREMENTS AND CURRICULA

STUDENTS in the Huntington School are obliged to meet certain requirements in regard to length of time in attendance, scholastic standing, and course of study, before a diploma can be awarded.

Diplomas are granted from two courses, namely, College Preparatory and General:

## COLLEGE PREPARATORY DIPLOMA

FIFTEEN UNITS acceptable for college entrance are required for graduation. No student will be graduated with the College Preparatory diploma unless he can produce evidence of having received either in the Huntington School, or some other accredited school, B grades or better in at least eight units of work, or of having passed eight units of work in approved college entrance examinations. At least eight units of required work must be completed at Huntington, four of which must be of B grade or better. This applies to all students regardless of the number of years in attendance. In the remaining seven of the fifteen units required for graduation no grades less than C are acceptable. A unit is given for each subject taken five periods a week throughout the school year or the equivalent thereof, except that four years of English are counted as three units. A student must be in attendance for at least one year to receive the College Preparatory diploma.

### EXPLANATORY NOTE

Parents and boys should know how it is possible to earn a Huntington School diploma in one year and the position in which a boy must be at the beginning of the year in order to accomplish this.

It is obvious that at least four years of work in one or more high or preparatory schools are necessary for securing an accredited diploma. Many boys who earn such in the Huntington School are already high school graduates. Eight units of work can be completed in a regular schedule in one year. Such a schedule might well be: English IV (3 units); Modern Language (2 units); Algebra II (2 units); and American History (1 unit).

A boy should know that while completion of such a subject as French III with a B grade entitles him to three (3) units towards graduation from the Huntington School, it by no means insures certification to college in three (3) units. This is a matter which must be decided by the Director of Admissions of the college. If there is doubt, the College Entrance Board examinations should be taken.

## GENERAL COURSE DIPLOMA

FIFTEEN UNITS are required for graduation in the General Course. At least eight of these required units must be completed at Huntington. A unit is given for each subject taken five periods a week throughout the school year or the equivalent thereof, except that four years of English are counted as three units.

All subjects must be passed with a grade of C or better.

Graduates from our General Course most frequently enter Business Administration colleges and arrange their schedules on that basis.

## COLLEGE ENTRANCE UNITS

FIFTEEN UNITS are required by most colleges for entrance. Each year the Huntington School sends to college several students who do not graduate but who come to us for the purpose of earning sufficient units, in addition to those previously earned elsewhere, so that they can be accepted by the college of their choice.

Since promotion at Huntington is entirely by subjects, the School is in an excellent position to serve those who do not need a full program of study or who do not necessarily need to meet our graduation requirements in order to enter college.

## COLLEGE PREPARATORY COURSE

<i>Required:</i>	<i>Units</i>
College Preparatory English (4 years) . . . .	3
Algebra . . . . .	2
Plane Geometry . . . . .	1
French, German, or Spanish . . . . .	2
Physics or Chemistry . . . . .	1
American, Ancient, or European History	1
	<hr/>
	10

<i>Electives:</i>	<i>Units</i>
Latin .....	2, 3 or 4
French, German, or Spanish .....	2 or 3
Physics or Chemistry.....	1
American, Ancient, or European History	1
Solid Geometry.....	$\frac{1}{2}$
Trigonometry.....	$\frac{1}{2}$
Mechanical Drawing.....	1 or $\frac{1}{2}$

In addition, other electives may be permitted by special consent provided they are accepted by the college to which the student seeks entrance.

Language and Mathematics requirements vary somewhat for entrance to the different colleges. This is especially true of the Latin and Modern Language requirements. Some colleges require three entrance units in either French or German. Some technical colleges require Solid Geometry or Trigonometry or both for entrance. It is the student's responsibility to meet the requirements of the college he elects to enter.

Some colleges accept a limited number of credits in commercial subjects.

## GENERAL COURSE

THE GENERAL COURSE prepares one to occupy a position in business life and also, if the right selection of subjects is made, to enter Colleges of Business Administration such as those of Boston University, Syracuse University, and Northeastern University.

A wide selection of subjects is possible, but choice of many college preparatory subjects should be made.

<i>Required:</i>	<i>Units</i>
College Preparatory English (4 years)....	3
American, Ancient, or European History	1
Physics, Chemistry, or Biology.....	1
Algebra I.....	1
	<hr/>
	6



### Electives:

The remaining 9 units may be selected from the following:

	Units
American, Ancient, or European History	1
French, German, or Spanish.....	2
Physics or Chemistry.....	1
Plane Geometry.....	1
Bookkeeping.....	1 or 2
Mechanical Drawing.....	$\frac{1}{2}$ or 1
General Science.....	$\frac{1}{2}$ or 1
Commercial Arithmetic.....	$\frac{1}{2}$
Commercial Law.....	$\frac{1}{2}$
Economics.....	$\frac{1}{2}$
Commerce and Industry.....	$\frac{1}{2}$
Civics.....	$\frac{1}{2}$ or 1

or from any college preparatory subjects offered by the School.

### SPECIAL ONE-YEAR COURSE FOR HIGH SCHOOL GRADUATES

MANY boys need an additional year of preparation before going to college; some need to strengthen their foundation before attempting college work; some need additional units of certificate grade; and some need intensive preparation for the College Entrance Board examinations (either Plan A or Plan B). This course has been a very popular one at Huntington and much has been done for boys enrolled in it.

### PREPARATION FOR COLLEGE

IN THE HUNTINGTON SCHOOL a boy can be prepared for entrance to any college. The teaching staff is experienced in this field and all courses are arranged with college entrance always in view.

There are three principal methods by which a boy may meet the college entrance requirements. These are: (1) By certificate; (2) By examination; and (3) By a combination of certificate and examination.

Such colleges as Harvard, Yale, Princeton, and the Massachusetts Institute of Technology as a rule require that either the College Entrance Board examinations shall be passed or the examinations set by the colleges themselves. In the case of Harvard, the College Board examinations must be passed.

Any boy interested in entering any one of the above colleges should consult the various college catalogs for detailed information or consult the Headmaster.

Certification for entrance to colleges belonging to the New England College Certificate Board requires that B grades shall be earned. Huntington has special certification arrangements with many colleges that do not belong to the Board.

### SPECIAL COURSES

IN HUNTINGTON there are especially arranged courses for preparing boys for entrance to certain colleges.

For example, there is a two-year course in which a boy may be prepared to meet the requirements for entrance to the *Massachusetts Institute of Technology* provided certain previous requirements have been met. There is a special folder descriptive of this course which will be sent upon request.

In Huntington a boy will find especially arranged courses for entrance to the Boston University College of Business Administration, the University of Maine, Northeastern University, Worcester Polytechnic Institute and many other colleges.

An educational offering at Huntington that has helped many earn needed credits is the Summer School. Here, full units may be secured for work done. This session is co-educational. Much time has been saved by a program including one or more regular school years and summer sessions. The Headmaster will gladly discuss such a program with those who have an interest in it.

## TEACHER QUALIFICATIONS

PREPARATION FOR COLLEGE requires teachers who are not only especially trained but especially adapted for such work. In Huntington no teachers are engaged with less than five years of experience in the college preparatory field and certainly none on the staff are without understanding of the problems that most boys must face and solve if the college entrance situation is to be satisfactorily met. All teachers in Huntington are men who have been selected because of a demonstrated ability to work with boys.

## PARENT-TEACHER CO-OPERATION

PREPARATION FOR COLLEGE when best accomplished requires co-operation from all persons involved, namely, the boy, his parents, his teachers, and the college Directors of Admission. At various periods throughout the year, Parent-Teachers Meetings are held. These meetings afford opportunity for the discussion of mutual problems. The Headmaster is always available for interviews with parents.

## HUNTINGTON A RECOGNIZED SCHOOL

THE SCHOOL is recognized by the leading colleges. The School is a member of the New England Association of Colleges and Secondary Schools and the Private School Association.

The School has full certification privileges as granted by the New England College Entrance Certificate Board. The School has a Cum Laude Charter.

# SCHOOL POLICIES

## HOURS OF ATTENDANCE

THE SCHOOL is in session five days each week. Attendance on Saturday mornings may be required of students who need supplementary instruction, who are behind in their work, or who are called back for disciplinary reasons.

The daily hours of attendance for boys in the Senior School are from 9.00 A.M. until 2.20 P.M. Recreational and extra-curricular activities are held after 2.20. Boys in the Intermediate School remain until 3.45 except on Fridays, when they are dismissed at 2.20.

*The Intermediate School Schedule is as follows:*

9.00 — 9.15	Assembly
9.15 — 12.15	Recitations
12.15 — 12.45	Lunch
12.45 — 1.30	Recitation
1.30 — 3.00	{ Physical Training, Games, etc., at Huntington Field every day except Friday during fall and spring terms. During winter term this period is used for Play Activities in the Johnson Memorial Gymnasium and the Swim- ming Pool, and for Club Activities, etc.
3.00 — 3.45	Study Period

## EXAMINATIONS

EXAMINATIONS are held at the close of each term. Boys who fail in examinations must make up the deficiency within a reasonable time or enter a lower Form in the subjects in which they have failed. Unexcused absence from an examination means failure in the course.

## MARKING SYSTEM

THE FOLLOWING is the marking system used by the School:

A	90% to 100%
B	80% to 90%
C	70% to 80%
D	60% to 70% (unsatisfactory)
F	Failure
Inc.	Incomplete

A is a mark of high distinction and is given to a student whose work approaches perfection, or it may be considered as a grade representing approximately the best that may be expected of a student.

B is given for work plainly above the average. Students who are to succeed in the best colleges should be able to attain this grade consistently.

C is given for average work. The standards of the School are such that students obtaining some C grades with a majority of B grades or better may expect to succeed in many colleges and will be recommended for entrance to many institutions not requiring B grades for certification.

D is given for work that lies between passing and absolute failure. It is often given to inform the student that by increased effort, he may place himself in the C group and then be in a position for even greater rewards. D does not count for diploma credit.

F indicates failure and requires repeating the subject.

Inc., meaning Incomplete, is given for work which may be ranked later as a result of make-up work or examinations.

## TESTS

THE SCHOOL recognizes the need of having its students become accustomed to frequent testing. Entrance to college often requires ability to pass difficult examinations and successful progress in college is quite likely to depend upon one's ability to meet test situations satisfactorily. The School believes that a student can overcome the fear and nervousness incidental to taking examinations by being frequently tested. Short examinations are given often in all classes.



## REPORTS

REPORTS of the boys' work are sent home frequently. Work missed for any logical reason is marked "incomplete" until made up, when the grade obtained in making up the work is substituted. Absence from an examination without a satisfactory excuse means a failing grade (F) in the course.

## PROMOTION BY SUBJECTS

PROMOTION BY SUBJECTS rather than by classes is the ideal way to build up a good foundation for success in college. Why, for example, should a boy proceed with French II until he has mastered to a reasonably successful degree, French I?

Promotion by subjects requires a flexible schedule and a larger teaching staff than would be necessary in the usual situation. The Huntington School, realizing its responsibilities as they concern the preparation of boys for entrance to and especially for success in college, offers a schedule which can generally meet any need of those desiring college entrance units.

Graduation from the Huntington School and entrance to the great majority of the colleges requires evidence that fifteen units have been satisfactorily completed. This is a reasonable requirement. No student could expect to succeed in college unless he is capable of meeting it.

## REGULATIONS

THE CO-OPERATION of all parents in the enforcement of regulations is requested. Each boy is expected to be punctual in his attendance at every school exercise. Dismissing a student before the close of the school day interferes seriously with the school routine and with the student's advancement. Only in case of unusual urgency should such requests be made. Outside appointments should be made at a time when they do not interfere with the school work.

When a boy is entered in the School it is understood that his attendance is controlled by the School. Absence from school except for sickness will result in inconvenience to the student.

The School does not seek to enroll students who require severe restrictions. The right is reserved by the School to dismiss any boy whose conduct, influence, industry, or progress is unsatisfactory in the judgment of the Headmaster.

### DETENTION

THE SCHOOL reserves the right to detain students after the regular hours, or on Saturday, to make up back work, or for disciplinary reasons.

## HONORS AND AWARDS

### SCHOLARSHIP HONORS

THREE GRADES of honors for scholarship are conferred at the end of each grading period: "Highest Honors" upon all boys who have maintained a rank of A in all courses; "Honors" upon all boys who have not received a rank lower than B in all courses; "Honorable Mention" upon all boys who have received an average of B in all courses.

### SCHOLARSHIP AWARDS

SCHOLARSHIP MEDALS are awarded at Commencement to the student in each Form in the School who maintains the highest rank during the year.

### THE ALBERT WALTER SWENSON MEMORIAL MEDAL

ESTABLISHED in 1929 by Mrs. Swenson in memory of her husband. Mr. Swenson for nine years served the School faithfully as Head of the Modern Language Department and for two and a half years as Associate Headmaster. Awarded for excellence in French III to that student who has attended the School for at least one year.

## THE CLASS OF 1928 MEDAL

ESTABLISHED in 1928 by the graduating class of that year. Awarded at Commencement to the member of the Senior Class who excels in English.

## THE RICHARD JOHN CARROLL MEMORIAL MEDAL

ESTABLISHED in 1928 by the parents of Richard John Carroll, a graduate of the School in 1927 and president of his class. Awarded at Commencement to the student in the Junior Class who excels in English Composition.

## THE ARTHUR STANTON CARLETON MEMORIAL MEDAL

ESTABLISHED by the parents of Arthur Stanton Carleton in 1930, the year in which Arthur would have graduated from the Huntington School had he lived. Awarded each year to the member of the Junior School whose play, spirit, and character have best maintained the traditions of the School.

## THE ALBERT WALTER SWENSON PUBLIC SPEAKING MEDAL

ESTABLISHED in 1929 by friends of Mr. Swenson from the student body and alumni of the School. Awarded to the winner of the Public Speaking Contest.

## CUM LAUDE SOCIETY

THE HUNTINGTON CHAPTER of the Cum Laude Society was established in 1928. This is a national honorary society which in preparatory schools corresponds to the Phi Beta Kappa Society in colleges. Each chapter may elect to membership teachers of the school who are members of the Phi Beta Kappa Society, or any similar honorary society approved by the Board of Regents.

Each chapter may elect as members those students of the highest class in any academic course who have had an honor record up to the time of election and stand in the first fifth

of the class, choosing the whole number at the end of the school year, or not more than a tenth of the class at any time during the year and the remainder at the end.

## EXTRA-CURRICULAR ACTIVITIES

THE SCHOOL sponsors several extra-curricular activities. These vary somewhat from year to year, depending upon the desires of the student body. Generally, we have a Public Speaking Group, a Literary Club, a Chess Club, a Current Events Club, a French Club, and a Science Club. One of the principal social events of the year is the Father and Son Banquet, at which certain groups of students provide the entertainment. In anticipation of this event, a Glee Club and Orchestra are organized. The School publishes a paper called *The Huntington Record*, and a considerable number of boys are on the staff of this publication.

## PHYSICAL EDUCATION

PHYSICAL EDUCATION may be defined as the process of developing the body in the right way. The policy of physical training in the Huntington School is a broad one. We are not concerned exclusively with bodily development but rather with general development. Accordingly we believe that the by-products of games and sports are of great importance. To secure the greatest benefits from a program of physical training the various squads must be under the direction of men who because of what they are and because of their leadership provide valuable character training.

All students, unless excused as a result of a certificate from the family physician are urged to participate in some form of physical activity during the winter term. A gymnasium class meeting regularly each week is available for those not wishing to enter a definite sport.

A study which we have made seems to indicate that boys who refuse to become interested in any form of physical exercise seldom become successful students.

Play is just as much an essential part of any school program as study provided it is properly supervised. A well-balanced program of physical education invariably does much to increase efficiency in the classroom.

## SPORTS

MANY DIFFERENT SPORTS are offered each season, such as, during the fall term, football, track, tennis; during the winter term, track, basketball, skiing and swimming; and during the spring term, baseball, track, and tennis. Each sport is directed by a coach who is experienced in directing athletics.

## GYMNASIUM UNIFORMS

IT HAS BEEN FOUND advisable to have a uniform suit for gymnasium classes. New pupils, therefore, are requested not to get gymnasium suits before entering. Orders are taken in the Physical Department shortly after the opening of the School in the fall.

## MAROON AND BLACK MEET

AT THE CLOSE of the fall term the student body is divided into two groups, the Maroons and Blacks (the School colors). A very interesting track and swimming meet is held in which both Intermediate and Senior groups are represented.

## SOCIAL EVENTS

THE SCHOOL sponsors and supervises a well defined program of social events, namely, the Huntington School Promenade, the Father and Son Banquet, and the Commencement Dance.



# OUTLINE OF COURSES

## TEXTBOOKS AND COURSE CONTENT

ALL TEXTBOOKS are carefully selected; they are standard and meet the college entrance requirements. The various course contents meet in full the requirements as set by the leading colleges and universities and as outlined by the College Entrance Examination Board.

The School has a system of review previous to the College Board examinations which has proved most effective in preparing boys for these important tests.

## INTERMEDIATE SCHOOL

STUDENTS will select, each year, with the advice of the Headmaster, twenty hours of work. Only the student of exceptional ability will be permitted to take more than a normal schedule of hours.

### FORM I (EIGHTH GRADE)

ENGLISH	Fundamentals of Grammar. Oral and written composition correlated with the other school work and based upon school experiences of the pupil. Special emphasis upon the development of the sentence sense. Directed reading from a wide range of modern as well as classical writers. Preliminary diagnostic tests with individual work based upon the results of the tests.
MATHEMATICS	A comprehensive review of Arithmetic. Emphasis upon rapid and accurate computation and analysis of problems and formulae and their applications. A thorough preparation for more advanced Mathematics.

**SOCIAL STUDIES** The social studies are so correlated as to contribute towards the understanding and the intelligent solution of contemporary social and industrial problems. Their limits as well defined fields of knowledge are recognized, but through the problem and the topic method subject matter boundaries are frequently ignored. The content material of the essentials of Geography and Elementary General History are covered as a correlated program of social studies.

**HISTORY**

**GEOGRAPHY**

**CIVICS**

**SCIENCE** The chief topics are "The use of machines and electricity in every day life," "The earth and its relation to the other astronomical bodies," "The earth's crust," and "Life on the earth." A considerable amount of time is spent in the laboratory working out simple experiments.

**MECHANICAL DRAWING** The elementary course in Mechanical Drawing includes attention to geometrical construction, lettering and the drawing of simple objects.

## FORM II (FOURTH YEAR FROM COLLEGE)

**ENGLISH** Drill in grammar, punctuation, and spelling. Study of the sentence. Study of elementary composition. Special attention to the development of good taste in reading. Class study of *Ivanhoe*, selected lyric poems and short stories. Individual reading of at least four books selected from the College Board List.

MATHEMATICS	The fundamental operations are thoroughly covered and in addition, stress is laid on a sound preparation for the college preparatory courses in Algebra.
LATIN	In the Latin I course an effort is made to master such vocabulary, inflections and syntax as seems necessary as a foundation for college preparatory work in the subject. Much time is devoted to reading and writing simple prose and in establishing the proper relation between Latin and English words. Boys who have a competent knowledge of English grammar attain the best success in this Latin course.
SPANISH	A beginner's course which, although designed primarily for the student who will continue through a second year, will give a practical foundation of grammar enabling one to continue the language for his own pleasure. Pronunciation, dictation, reading of simple prose, oral practice.
ANCIENT HISTORY	Brief view of the Eastern nations, with emphasis on their civilization. History of Greece to the disintegration of Alexander's empire, with special attention to political, intellectual and artistic development. History of Rome to death of Charlemagne, emphasizing political growth, development of the Roman legal system, and the growth of the Christian church. Ample opportunity is given for development of individual interests within the course through use of reference texts provided by the School. The course carries college entrance credit.
MECHANICAL DRAWING	Covers: use of instruments, geometric constructions, orthographic projection, isometric projection, working drawings of simple objects, developments and intersections.

# SENIOR SCHOOL

## FORM III (THIRD YEAR FROM COLLEGE)

ENGLISH	Continuation of the work of Form II in grammar, punctuation, and spelling. Study of the paragraph. Composition and memory work. Class study of Silas Marner, Idylls of the King, Sohrab and Rustum, Prisoner of Chillon. An introductory study of the essay. Individual reading of at least four books from the College Board List.
MATHEMATICS	The five books of Plane Geometry according to accepted standards. Emphasis on original proofs and practical applications. The course covers the College Board requirements.
LATIN	Careful translation of four books of Caesar's Gallic War or an equal amount from approved authors, sight reading from Caesar, Nepos, Tacitus, or Pliny. Systematic study of grammar and Latin composition. Prepares for Cp. 2 (Two-Year) Latin College Board examination.
FRENCH	Study of the elementary principles of grammar. Practice in pronunciation and in easy conversation. Short written themes and reading of French stories ranging from the simple to those of moderate difficulty. Introduction to the study of irregular verbs and common idioms.
SPANISH	A thorough review of first year Spanish with more advanced work in grammar and composition. Much and varied reading places emphasis on comprehension. This course prepares for the Elementary Spanish examination of the College Board.

ANCIENT  
HISTORY

Brief view of the Eastern Nations, with emphasis on their civilization. History of Greece to the disintegration of Alexander's empire, with special attention to political, intellectual and artistic development. History of Rome to death of Charlemagne, emphasizing political growth, development of the Roman legal system, and the growth of the Christian church. Ample opportunity is given for development of individual interests within the course through use of reference texts provided by the School. The course carries college entrance credit.

FORM IV (SECOND YEAR FROM COLLEGE)

ENGLISH

Continued study of rhetoric and composition. Précis Writing. Individual reading of at least six books from the College Board List. Class study of Modern Essays, Selected Poems, and House of Seven Gables. Thorough review of English grammar.

MATHEMATICS

Review of Elementary Algebra with more difficult problems. Simultaneous quadratic equations with applications, graphical solutions, variables, progressions, the binomial theorem, logarithms and the Trigonometry requirements of the College Entrance Examination Board.

LATIN

Study of Cicero's Citizenship of Archias, Manilian Law, and the four orations against Catiline. Sight reading of selections from other works of Cicero. Study in comprehension of passages selected from other authors. Continued study of composition and grammar. Prepares for Cp. 3 (Three-Year) Latin examination.



**FRENCH** Continuation of the formal study of grammar and irregular verbs. Drill on vocabulary and the most frequently used idioms. Composition and translation of increasing difficulty. Conversational French. Preparation for Elementary French examination of the College Board.

**GERMAN** A beginner's course. Drill in pronunciation and the rudiments of grammar. Exercises to fix in mind the forms and to cultivate readiness in translation. Reading of easy German.

**SPANISH** Spanish courses offered in Form II and in Form III are open to students of this Form.

**EUROPEAN HISTORY** College preparatory course from the beginning of the 17th century to the present time. Study of leading characters. Intensive study of democratic and economic advancement, and international relations with reference to present day problems. Social and intellectual development of 19th and 20th centuries. Map study.

**CHEMISTRY** A standard college preparatory course in Chemistry. Lectures, recitations, laboratory experiments and problems with reference to practical applications of Chemistry in everyday science and industry. An appreciation of the "science method" is developed which helps the boy in later scientific studies.

#### FORM V (SENIOR CLASS)

**ENGLISH** Oral and written composition. A detailed study of three literary types. Practice in critical reading of specimens of modern literature and of classics acceptable for college preparation. An attempt is made toward an appreciation of excellence in literature, and in composition toward attaining some of the fundamental qualities of good style.

MATHEMATICS	<p><i>Solid Geometry.</i> The standard content of the four books of Solid Geometry.</p> <p><i>Plane Trigonometry.</i> The college entrance requirements in the subject are covered.</p> <p><i>Advanced Algebra.</i> Requirements for the Gamma College Board examination are covered.</p> <p><i>Review Mathematics.</i> This is a review course in Algebra and Plane Geometry for those contemplating taking the College Board examinations or for those seeking certification in these subjects.</p>
LATIN	Careful reading of the required amount from the works of Virgil and Ovid. Critical study of the prescribed reading. Sight reading and appreciation of style. Study in comprehension of passages selected from other authors. Continued study of grammar and historical background. Prepares for Cp. 4 (Four-Year) or Cp. H (Poets) Latin College Board examination.
FRENCH	Continued study of grammar and composition. Review of irregular verbs and common idioms. Development of an adequate vocabulary based on word frequency. Drill to attain facility in oral comprehension and expression. Readings from French classics and modern works of moderate difficulty. Comprehension exercises on selections of greater difficulty. Dictation and the writing of original abstracts and themes. Special work for College Board examinations.
SPANISH	Spanish courses offered in Forms II and III are open to students in this Form.
GERMAN	Continued drill in grammar and syntax. Exercises in writing German from texts and dictation. Reading of Modern German prose. Preparation for the Elementary German examination of the College Board. Composition work.

## AMERICAN HISTORY

College preparatory course. Study of background. Special reference to development of independence and a strong national government. Intensive study of sectionalism culminating in Civil War, currency, tariff, banking, industrial growth particularly following the Civil War, democratic reform, foreign relations. Biographical study. Map work.

## PHYSICS

The standard college preparatory course in Physics, dealing with the phenomena of mechanics, heat, electricity, sound, and light. Lectures, recitations and sufficient laboratory experiments to meet the college entrance requirements. Mathematical problems and discussion of practical applications. Special emphasis upon logical scientific thinking to form correct habits for college and later life.

## COMMERCIAL SUBJECTS

These Courses Provide Excellent Preparation for Colleges of Business Administration.

### ECONOMICS

A study of the principles outlining modern business and industrial conditions. Present day problems including transportation, taxation, and public finance. Written reports on current economic questions.

### COMMERCIAL LAW

The principles of business law, including contracts, sales, negotiable instruments, agency, partnerships and corporations.

### BOOKKEEPING

The elementary principles of double-entry Bookkeeping, short exercises in recording business transactions, in taking trial balances and closing the books; carefully prepared sets which illustrate modern Bookkeeping practices.

ADVANCED  
BOOKKEEPING

The treatment of advanced bookkeeping principles including control accounts, columnar developed journals, adjustments, partnerships, and corporations. A good foundation course for business college freshmen accounting.

BUSINESS  
ARITHMETIC

Problems in Arithmetic sufficient to meet the needs of the student in elementary Bookkeeping; especial attention paid to percentage, interest, bank discount, and commission. Rapid calculation.

COMMERCE  
AND  
INDUSTRY

A study of the industries and natural resources of the United States, and the other leading countries of the World. Oral and written reports on present day commercial conditions as reflected in the current magazines and daily press.

SPELLING

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# FINANCIAL

## REGULAR STUDENTS

The tuition for all regular students is \$425, payable as follows:

On or before the opening of School...	\$175.
November 1.....	\$100.
February 1.....	\$ 75.
April 1.....	\$ 75.
Total.....	<hr/> \$425.

## SPECIAL STUDENTS

Because of the flexible schedule in the Huntington School those who so desire may generally enroll in separate subjects. Students so enrolled, provided not more than three subjects are pursued, are classified as special students. Rates charged are on the basis of the schedule taken.

## REGISTRATION FEE

A registration fee of \$5 is due from all new students when a place is reserved. When once paid, it will not be refunded. When an applicant enrolls in the School, it is understood, unless otherwise specified, that he enrolls for the entire year.

## CHEMISTRY PHYSICS

A laboratory fee of \$10 is charged all students taking either Chemistry or Physics.

## MECHANICAL DRAWING

A fee of \$5 is charged all students taking Mechanical Drawing.

## BOOKS AND SUPPLIES

All students buy their own books and supplies. This material can be purchased from the bookstore.



GRADUATION	<p>All students graduated from the School are charged a graduation fee of \$10, which covers the cost of diploma and expenses incidental to graduation.</p> <p>All financial obligations to the School must be met before a diploma can be awarded or credit given for work completed in the School.</p>
CHARGES FOR MEDICAL ATTENTION	<p><i>The School will not assume responsibilities for injuries received or for expense incurred because of necessary medical attention for injuries received in connection with athletics.</i></p>
STUDENTS' TICKETS	<p>Students who live in suburban towns can secure railroad tickets at greatly reduced rates by applying at the office of the railroad. Students of the School are permitted to ride on the Boston Elevated on payment of one-half fare.</p>

### TUITION GRANTS

THE TRUSTEES OF THE SCHOOL set aside each year the sum of \$7,500 to be used to help boys of good character and ability who need financial assistance. This fund is administered by a Committee, the members of which carefully review all applications for aid and make the various awards.

Applicants are considered solely upon the basis of merit and need and in the order in which the applications are received. In all cases candidates for grants must interview the Headmaster of the School. Arrangements for interviews can be made through the Secretary of the School.

Those who desire tuition grants are advised to apply early as the number of applications invariably exceeds those to whom aid can be granted.

### REFUNDS

THE SCHOOL assumes the obligation of carrying the student throughout the year. Instruction and accommodations are

provided on a yearly basis; therefore no refunds are granted except in cases where students are compelled to withdraw on account of personal illness.

### REFERENCES

APPLICANTS for admission to the Huntington School must furnish the names of two persons, not relatives, who are able to vouch for the character and ability of the student and the financial responsibility of the parent.

The School is always pleased to refer those who inquire to parents, alumni, or educators, who are thoroughly familiar with the work of the School. Names and addresses will be furnished upon request.

Most of our students come to us through the recommendation of former students and their parents and of college deans.

# HUNTINGTON SUMMER SCHOOL

EACH year, the School conducts a Summer Session beginning about the first of July and ending about the first of September.

The Huntington Summer School was established in 1912 and since that time has prepared a large number of students for entrance to the New England colleges and others outside this area.

The aim of the School is to provide tutoring and class instruction for those who are conditioned in grammar school, high school or college entrance subjects; for those who wish to complete a four-year high school course in three years; and for those who wish to make special preparation for entrance examinations to New England colleges.

The program of work includes all the courses accepted for admission by colleges, together with work usually given in the eighth grade.

The teaching force is made up of the men of the regular school faculty.

*The Summer Session is co-educational.*

The classes are small. The program of work is so arranged that a year's work in any course, as ordinarily counted by high schools, is completed during the Summer Session. Students who elect work which they have not before attempted usually pursue only one or two courses. Those who are reviewing are limited only to the amount of work that they can do well.

## CHARGES

The rate of tuition in the Summer School is as follows:

One subject.....	\$ 50.
Two subjects.....	\$ 90.
Three subjects.....	\$120.

TUITION is not refunded because of withdrawal or change of schedule. A laboratory fee of \$10 is charged all students taking either Chemistry or Physics.

Each student pays a registration fee of \$5 in addition to the above charges. Fees are not refunded in case of withdrawal. All fees are in addition to the regular tuition charge.

The charge for individual tutoring is \$2.50 an hour.

Three-fifths of the tuition is due upon entrance, plus the registration fee. The balance, including laboratory fees, is due on August first.

A special circular of this School will be forwarded upon request.

## THE ALUMNI ASSOCIATION

Every School needs an Alumni Association comprised of a membership which maintains a cooperative interest in the affairs of the School.

Many years of experimentation in alumni organization seems to have resulted in forming several definite conclusions in regard to alumni-school relationships that are sound and workable.

For example, there does seem to have been a clear demonstration that a good alumni association cannot function purely as a social organization or as an organization entirely separate from the School as far as its administration is concerned.

In schools and colleges where alumni associations have been most successful the officers of the association have invariably maintained a very close contact with the School administration and because of this have been able (as they should) to be very helpful in those respects which seem to classify themselves particularly as alumni responsibilities.

One of the responsibilities of alumni is to recommend to others the School from which graduation took place. In this respect Huntington alumni have done well.

Another responsibility is to support the association by paying dues and attending the annual meeting. Here, as in all schools, there is room for improvement. We hope for a constantly increasing membership.

Thirdly, there is need for further support of the Alumni Scholarship Fund. As Huntington graduates prosper may we hope that there will be a desire to help some worthy boy who, although ambitious to prepare for college, finds the financial burden too great to carry alone. A little help means the difference between success and failure for him. Contributions to this fund may be sent to the treasurer of the Alumni Association and addressed to the School office.

Huntington at the present time has an alumni group numbering more than twelve hundred. The ideal situation would be to have all of these enrolled as active members of the association. The cost is only one dollar a year and this includes a subscription to The Huntington Record which is published approximately fifteen times each year. Subscriptions will be accepted in the School office.



## GEOGRAPHICAL DISTRIBUTION OF STUDENTS

DURING THE YEAR 1937-38, students were enrolled in the Huntington School from the towns and cities listed below:

Allston	Jamaica Plain	Reading
Arlington	Lawrence	Revere
Belmont	Lexington	Roslindale
Boston	Lewiston, Maine	Roxbury
Brighton	Lowell	Sandwich
Brookline	Lynn	Sharon
Cambridge	Lynnfield	Somerville
Chelsea	Malden	Stoughton
Chestnut Hill	Marshfield	Swampscott
Dedham	Medford	Wakefield
Dorchester	Melrose	Walpole
Framingham	Milford	Waltham
Franklin, N. H.	Milton	Watertown
Gloucester	Needham	Wellesley
Haverhill	Newton	West Roxbury
Holbrook	North Easton	Winchester
Holliston	Norwood	Winthrop
Hopkinton	Providence, R. I.	Woburn
Hyde Park	Quincy	Wollaston

## COLLEGES WHICH HUNTINGTON GRADUATES HAVE ENTERED

HUNTINGTON sends approximately sixty boys to college each year. During recent years, graduates of the School have entered the following institutions of higher education:

Acadia University	Norwich University
Amherst College	Ohio State University
Babson Institute	Penn. Military College
Bates College	Penn. State College
Boston College	Rensselaer Polytechnic Institute
Boston University	Springfield College
Bowdoin College	Syracuse University
Brown University	Temple University
Cambridge University (England)	Tufts College
Clark University	U. S. Coast Guard Academy
Colby College	U. S. Military Academy
College of William and Mary	U. S. Naval Academy
Columbia University	Union College
Cornell University	University of Alabama
Dartmouth College	University of Colorado
Duke University	University of Iowa
Fordham University	University of Kansas
Franklin and Marshall College	University of Maine
Georgia School of Technology	University of Miami
Gettysburg College	University of Michigan
Harvard University	University of New Hampshire
Holy Cross College	University of Notre Dame
Lehigh University	University of Pennsylvania
Lowell Textile Institute	University of Vermont
Mass. College of Pharmacy	Virginia Military Institute
Mass. Institute of Technology	Washington and Lee University
Mass. School of Optometry	Webster College
Mass. State College	Wesleyan University
Middlebury College	Western Maryland College
N. E. Conservatory of Music	Worcester Polytechnic Institute
Northeastern University	Yale University

## GENERAL SCHOLARSHIP FUND

We feel that it is the duty of every college preparatory school to make some contribution towards the education of worthy boys who have the ability to go to college and who should, as a matter of fact, have a college training. We feel that there are many among the alumni and friends of the School who are glad to help such boys by making contributions to a general scholarship fund. Such contributions should be sent to the school office and checks should be made payable to the Huntington School.

### FORM OF BEQUEST

While it is not necessary, it would be appreciated if those contemplating gifts or bequests would confer with the Headmaster of the School regarding the needs of the School before legal papers are drawn.

Funds given to the school should be left in the following manner:

"I give and bequeath to the Huntington School for Boys  
the sum of .....dollars."



# HUNTINGTON SCHOOL FOR BOYS

## APPLICATION FOR ADMISSION

Applicant's full name

(First Name)

(Middle Name)

(Last Name)

Home address

Date of birth

Place of birth

Father's name

Father's occupation

Business address

Home telephone

Business tel.

Religious preference

Condition of health

College you wish to enter

When?

Schools attended

Name and address of two persons not connected with your family, to whom we can refer.

Name

Address

Name

Address

Date

Signed

Parent or Guardian

NOTE: A registration fee of \$5.00 must accompany this application.



















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